Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Numbering Resource Optimization	)	CC Docket No. 99-200
	)	

REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULE MAKING

Adopted: March 17, 2000 **Released: March 31, 2000**

Comment Date: May 1, 2000
Reply Comment Date: May 16, 2000

By the Commission: Commissioners Ness and Furchtgott-Roth issuing separate statements.

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I. INTRODUCTION

1. Section 251(e) of the Communications Act of 1934 (Communications Act), as amended, grants this Commission plenary jurisdiction over the North American Numbering Plan (NANP) and related telephone numbering issues in the United States.[1] In fulfilling this statutory mandate, we have identified two primary goals. One is to ensure that the limited numbering resources of the NANP are used efficiently, to protect customers from the expense and inconvenience that result from the implementation of new area codes, some of which can be avoided if numbering resources are used more efficiently, and to forestall the enormous expense that will be incurred in expanding the NANP.[2] The other goal is to ensure that all carriers have the numbering resources they need to compete in the rapidly growing telecommunications marketplace.

2. The rapid growth of competition and the proliferation of new telecommunications services over the past several years have intensified the challenge that we face to meet our responsibilities as the guardian of numbering resources in the United States. Today, an examination of the rapid rate at which new area codes are being assigned reveals the near-crisis state of the NANP. Just since the release of the *Numbering Resource Optimization Notice of Proposed Rulemaking* (*Notice*) almost ten months ago, 24 new area codes have been assigned in geographic areas around the country.[3] According to the North American Numbering Plan Administrator's (NANPA) most recent projections, 47 area codes will exhaust by the end of the

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[1] Pub. L. No. 104-104, 110 Stat. 56 (1996 Act). The 1996 Act amended the Communications Act of 1934, 47 U.S.C. §§ 151-174. 47 U.S.C. § 251(e)(1) provides:

> The Commission shall designate one or more impartial entities to administer telecommunications numbering and to make such numbers available on an equitable basis. The Commission shall have exclusive jurisdiction over those portions of the North American Numbering Plan that pertain to the United States. Nothing in this paragraph shall preclude the Commission from delegating to State commissions or other entities all or any portion of such jurisdiction.

[2] The NANP was established in the early 1940s, when American Telephone and Telegraph (AT&T) realized that there was a need to ensure that the expansion of long distance calling would be guided by principles consistent with the ultimate incorporation of all public switched telephone networks into an integrated nation-wide network. The NANP is the basic numbering scheme for the telecommunications networks located in Anguilla, Antigua, Bahamas, Barbados, British Virgin Islands, Canada, Cayman Islands, Dominica, Dominican Republic, Grenada, Jamaica, Montserrat, St. Kitts & Nevis, St. Lucia, St. Vincent, Turks & Caicos Islands, Trinidad & Tobago, and the United States (including Puerto Rico, the U.S. Virgin Islands, Guam and the Commonwealth of the Northern Mariana Islands). Under the plan, the United States and Canada were divided into eighty-three "zones," each of them identified by three digits. Within each zone, a central office was represented by another three-digit code. The original zones are now referred to as Numbering Plan Areas (NPAs), and the three digits representing those areas are referred to either as Numbering Plan Area codes or area codes. The three digits representing central offices are called central office codes. The central office code is used for routing calls and for rating and billing calls. A carrier must obtain a central office code for each rate center in which it provides service in a given area code. All public network facilities and private network facilities (such as private branch exchange systems) are designed and programmed to be consistent with the NANP scheme.

[3] *See* Numbering Resource Optimization, *Notice of Proposed Rulemaking*, 14 FCC Rcd 10322 (1999) (*Notice*).

year 2000, unless something is done to slow down the rate at which central office codes (or NXXs) in those areas are being assigned to carriers.[4]

3. The rapid depletion of numbering resources nationwide and the potential it creates for NANP exhaust are national problems that must be dealt with at the federal level. We recognize, however, that the states have an important role in the management of our numbering resources and we intend to continue working with them to implement a national numbering resource optimization framework. In creating national standards to address numbering resource optimization, we have sought to balance the need for national prioritization and policy making with practical concerns. Thus, in implementing the optimization measures discussed herein, we seek to: (1) minimize the negative impact on consumers of premature area code exhausts; (2) ensure sufficient access to numbering resources for all service providers to enter into or to compete in telecommunications markets; (3) avoid, at least delay, exhaust of the NANP and the need to expand the NANP; (4) impose the least societal cost possible, and ensure competitive neutrality, while obtaining the highest benefit; (5) ensure that no class of carrier or consumer is unduly favored or disfavored by our optimization efforts; and (6) minimize the incentives for carriers to build and carry excessively large inventories of numbers.[5]

4. As a starting point, we comprehensively address and resolve two of the major factors that contribute to numbering resource exhaust as identified in the *Notice*: the absence of regulatory, industry or economic control over requests for numbering resources, which permits carriers to abuse the allocation system and stockpile numbers, and the allocation of numbers in blocks of 10,000, irrespective of the carrier's actual need for new numbers.[6] In initially concentrating on these two areas, we do not intend to abandon our examination of those optimization measures not specifically addressed in this *Report and Order*. To the contrary, we intend to pursue all viable methods available to us to increase the life of each area code and of the NANP as a whole and to forestall, as long as possible, the need for area code relief and ultimately for the expansion of the NANP.[7] We first focus on the above-noted measures because we are convinced that they can be implemented quickly and will produce immediate and measurable results. We intend to address the remaining issues discussed in the *Notice* as well as the additional issues raised in the attached *Further Notice of Proposed Rulemaking* (*Further Notice*) in subsequent orders as expediently as possible.

5. In this *Report and Order*, we adopt administrative and technical measures that will allow us to monitor more closely the way numbering resources are used within the NANP. These measures will promote more efficient allocation and use of NANP resources by tying a carrier's

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[4] "Central office code" or "NXX code" refers to the second three digits (also called digits D-E-F) of a ten-digit telephone number in the form NPA-NXX-XXXX, where N represents any one of the numbers 2 through 9 and X represents any one of the numbers 0 through 9. 47 C.F.R. § 52.7(c).

[5] *Notice*, 14 FCC Rcd at 10326.

[6] *Id.* at 10328-29.

[7] NANP expansion will not only be very costly, but will change local and long distance dialing patterns by increasing the number of digits that must be dialed to place calls.

ability to obtain numbering resources more closely to its actual need for numbers to serve its customers. Specifically, we adopt a mandatory utilization data reporting requirement, a uniform set of categories of numbers for which carriers must report their utilization, and a utilization threshold framework to increase carrier accountability and incentives to use numbers efficiently. In addition, we adopt a single system for allocating numbers in blocks of 1,000, rather than 10,000, wherever possible ("thousands-block number pooling"), and establish a plan for national rollout of thousands-block number pooling. We also establish a framework for the selection of a thousands-block Pooling Administrator. In this *Report and Order*, we implement section 251(e)(2) with regard to numbering administration, adopt cost recovery principles that are similar to those established for number portability, and seek further comment on which costs are eligible for recovery as carrier-specific incremental costs of thousands-block number pooling. Furthermore, we adopt numbering resource reclamation requirements to ensure the return of unused numbers to the NANP inventory for assignment to other carriers. To encourage better management of numbering resources, we also mandate that carriers fill their need for numbers out of "open" thousands blocks before beginning to use numbers from new blocks to facilitate reclamation. While these new policies will, in some ways, significantly change the way that carriers request and receive numbers, we believe they also will better ensure that carriers have access to the numbering resources they need to compete in the increasingly competitive and innovative telecommunications marketplace. These measures will set the stage for the development and implementation of additional numbering resource optimization strategies.

II. BACKGROUND AND OVERVIEW

6. The rate at which existing area codes are entering a state of jeopardy and new area codes are being activated throughout North America has accelerated exponentially in the past several years. Compared to the activation of only nine new area codes in the ten-year period between 1984 and 1994, in 1997 alone, 32 new area codes were activated within the NANP.[8] This stark increase in the pace at which numbering resources are used demonstrates the proliferation of new technologies, such as wireless technologies, and competitive providers that need numbering resources to conduct their businesses. Of the 314 geographic codes assigned in the NANP, 252 serve portions of the United States. With only 618 usable area codes in the NANP, it is foreseeable that the NANP could exhaust within ten years unless measures are taken to slow the rate at which numbering resources are being used.[9] The cost of expanding the current

[8] Number Optimization Forecast and Trends, submitted by the NANPA, Lockheed Martin CIS, February 18, 1999 at 6 (Number Utilization Study). In 1996, 11 area codes were activated, and 24 were activated in 1998. Also, 22 area codes were activated in 1999. North American Numbering Plan Exhaust Studay, submitted to the NANC by the NANPA, Lockheed Martin CIS, April 22, 1999 at 2-3 (NANP Exhaust Study).

[9] NANP Exhaust Study at 2-9 and A-4. Although the time frame for NANP exhaust cannot be determined with precision, the NANPA developed two models that predict the NANP will be exhausted between 2006 and 2012. The North American Numbering Council (NANC), a federal advisory committee created to advise the Commission on numbering matters, established an industry working group to review the NANPA's exhaust projections, concluding that using alternative, but reasonable, assumptions, NANP exhaust is likely to occur in the 2005 to 2016 time frame. Although industry experts do not universally support the NANPA's projections, there is general agreement that the expected life of the NANP is limited. We sought comments on the design and assumptions contained in the NANPA's NANP Exhaust Model, and any alternative projections of NANP exhaust, including (continued….)

NANP is anticipated to be enormous,[10] and could take as long as ten years to design and implement.[11] These estimated costs are substantial, and would, we believe, significantly outweigh the cost of implementing all of the numbering resource optimization solutions adopted in this *Report and Order*. Moreover, we believe that extending the life of the NANP by as little as ten years could yield substantial benefits.[12] At the same time, estimates indicate that a relatively low percentage of individual telephone numbers are actually assigned to customers in the area codes that have gone into jeopardy. The NANPA estimates that the "fill rate," or actual assignment to subscribers of telephone numbers allocated to carriers, is between 5.7% and 52.6%, depending on the industry segment, and 34% overall industry-wide.[13] As these facts underscore, immediate and comprehensive action to make more efficient use of our numbering resources is imperative.

7. Although we have delegated to the states certain elements of numbering administration, such as implementing area code relief, that are local in nature, numbering resource optimization policy is part of our role as guardian of the nationwide NANP resource. Therefore, we have worked closely with state public utility commissions, industry groups, and our advisory body, the NANC, to explore various numbering conservation and optimization methods and develop our national numbering resource optimization strategy.[14] We recognize that numbering resource optimization efforts are necessary to address the considerable burdens imposed on all entities affected by the inefficient use of numbers; thus, we have enlisted the states to assist us in

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how long it would take to develop and implement an expanded NANP. *See Notice*, 14 FCC Rcd at 10337.

[10] Expanding the NANP would entail adding one or more digits to or otherwise altering the current ten-digit numbering scheme to increase the number of available telephone numbers. Preliminary estimates place the cost of NANP expansion between 50 and 150 billion dollars. *See* NANC Meeting Minutes, February 18-19, 1999, at 13.

[11] *See, e.g.*, NANC Meeting Minutes, March 11, 1997, at 7.

[12] To develop a rough estimate of the monetary benefits that could be realized by extending the life of the existing NANP, we provide for illustrative purposes the following analysis. Assuming that the total societal cost of replacing the NANP is $100 billion and that the real cost of capital is 7% (the OMP prescribed discount rate), the present value of replacing the NANP in 10 years would be $50.8 billion. In other words, $50.8 billion invested today at the real cost of capital will yield $100 billion in ten years. If some combination of number optimization measures can extend the life of the NANP another ten years — so that it does not have to be expanded until year 20 — the present value of $100 billion would be $25.8 billion. This means that extending the NANP by ten years is worth $25 billion in today's dollars (the difference between $50.8 billion and $25.8 billion). If the NANP were to last 20 years without numbering optimization and 30 years with it, the benefits would be approximately $12.7 billion (the present value of $100 billion in 30 years is $13.1 billion). These estimates suggest that the benefits of numbering optimization could result in substantial cost savings to society.

[13] Number Utilization Study at 8; *see also* NANC Meeting Minutes, February 17-18, 1999.

[14] The NANC was created under the Federal Advisory Committee Act, 5 U.S.C. App 2 (1988), to advise the Commission and to make recommendations, reached through consensus, that foster efficient and impartial number administration. The membership of NANC, which includes twenty-eight voting members and four special non-voting members, was selected to represent all segments of the telecommunications industry as well as regulatory entities and consumer groups with interests in number administration. The current NANC charter directs the Council to develop recommendations on numbering policy issues and facilitate number conservation including identification of technical solutions to number exhaust.

these efforts by delegating significant authority to them to implement certain measures in their local jurisdictions. In addition to the authority to implement area code relief, we have responded to requests by individual states by conditionally granting them authority to implement some of the following number conservation measures: thousands-block number pooling trials; NXX code rationing; reclamation of unused and reserved NXX codes and thousands blocks; auditing; and sequential number assignment.[15] The grants of authority to the state public utility commissions, however, were not intended to allow the state commissions to engage in number conservation measures to the exclusion of, or as a substitute for, unavoidable and timely area code relief.[16] Although we granted the state public utility commissions interim authority to institute many of the optimization measures they requested in their petitions, we did so subject to the caveat that these grants would be superseded by forthcoming decisions in this proceeding including this *Report and Order*.[17]

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[15] In September 1999, the Commission addressed five petitions from state utility commissions. *See* California Public Utilities Commission Petition for Delegation of Additional Authority Pertaining to Area Code Relief and NXX Code Conservation Measures, *Order*, 14 FCC Rcd 17485 (1999) (*California Delegation Order*); Florida Public Service Commission Petition for Expedited Decision for Grant of Authority to Implement Number Conservation Measures, *Order*, 14 FCC Rcd 17506 (1999) (*Florida Delegation Order*); Massachusetts Department of Telecommunications and Energy's Petition for Waiver of Section 52.19 to Implement Various Area Code Conservation Methods in the 508, 617, 781, and 978 Area Codes, *Order*, 14 FCC Rcd 17447 (1999) (*Massachusetts Delegation Order*); New York State Department of Public Service Petition for Additional Delegated Authority to Implement Number Conservation Measures, *Order*, 14 FCC Rcd 17467 (1999) (*New York Delegation Order*); Maine Public Utilities Commission Petition for Additional Delegated Authority to Implement Number Conservation Measures, *Order*, 14 FCC Rcd 16440 (1999) (*Maine Delegation Order*).

In November 1999, the Common Carrier Bureau addressed five similar petitions from state utility commissions. *See* Connecticut Department of Public Utility Control's Petition for Delegation of Additional Authority to Implement Area Code Conservation Measures, *Order*, CC Docket No. 96-98, DA 99-2633, NSD File No. L-99-62 (rel. Nov. 30, 1999) (*Connecticut Delegation Order*); New Hampshire Public Utilities Commission's Petition for Additional Delegated Authority to Implement Number Optimization Measures in the 603 Area Code, *Order*, CC Docket No. 96-98, NSD File No. L-99-71, DA 99-2634 (rel. Nov. 30, 1999) (*New Hampshire Delegation Orde*r); Petition of the Ohio Public Utilities Commission for Delegation of Additional Authority to Implement Number Conservation Measures, *Order*, CC Docket No. 96-98, NSD File No. L-99-74, DA 99-2635 (rel. Nov. 30, 1999) (*Ohio Delegation Order*); Petition of the Public Utility Commission of Texas for Expedited Decision for Authority to Implement Number Conservation Measures, *Order*, CC Docket No. 96-98, NSD File No. L-99-55, DA 99-2636 (rel. Nov. 30, 1999) (*Texas Delegation Order*); Petition of the Public Service Commission of Wisconsin for Delegation of Additional Authority to Implement Number Conservation Measures, *Order*, CC Docket No. 96-98, NSD File No. 99-64, DA 99-2637 (rel. Nov. 30, 1999) (*Wisconsin Delegation Order*).

[16] *See* Petition for Declaratory Ruling and Request for Expedited Action on the July 15, 1997 Order of the Pennsylvania Public Utility Commission Regarding Area Codes 412, 610, 215, and 717, *Memorandum Opinion and Order and Order on Reconsideration*, 13 FCC Rcd 19009, 19027 (1998) (*Pennsylvania Numbering Order*).

[17] *See California Delegation Order*, 14 FCC Rcd at 17486; *Connecticut Delegation Order* at ¶ 3; *Florida Delegation Order*, 14 FCC Rcd at 17506; *Maine Delegation Order*, 14 FCC Rcd at 16440; *Massachusetts Delegation Order*, 14 FCC Rcd at 17447; *New Hampshire Delegation Order* at ¶ 2; *New York Delegation Order*, 14 FCC Rcd at 17468; *Ohio Delegation Order* at ¶ 2; *Texas Delegation Order* at ¶ 2; *Wisconsin Delegation Order* at ¶ 2.

8. In adopting nationwide thousands-block number pooling as a number resource optimization strategy, we are mindful that this strategy is a means to an end - achieving more efficient number utilization - and not an end in itself. To that end, we have included incentive-based elements, such as usage thresholds, and safeguards, such as unused number reclamation requirements, to ensure that the goal of higher number utilization is achieved. We also reiterate that we do not necessarily see the measures implemented herein, particularly pooling, as our final answer to all of the problems associated with the current scheme of numbering resource allocation and utilization. We choose to implement pooling and certain administrative measures first because it is clear to us that these strategies can and will produce immediate and measurable results; they can be implemented in a relatively short amount of time; and some of these measures already have been implemented with some success.[18] Particularly, we are encouraged by the limited results we have seen in the Illinois pooling trial, in which the life of the 847 NPA has been extended by 24 months from the original projected exhaust date. We are aware that other optimization measures were also implemented in conjunction with the Illinois pooling trial. Thus, we have reason to believe that, while there is no one answer to resolving the numbering crisis, combining efforts to address effectively, comprehensively, and simultaneously different drivers of numbering exhaust may be the key to prolonging the life of the NANP. In this regard, we recognize the integral role state commissions play in our numbering resource optimization policies and we will continue to rely on them to implement timely area code relief and other measures for which we have delegated additional authority to them, such as reclamation of unused numbering resources. We emphasize again that we are not abandoning the optimization measures not being implemented or specifically addressed in this *Report and Order*.

9. At this time, we do not address issues raised in the *Notice* regarding audits, rate center consolidation, ten-digit dialing, and the use of technology-specific overlays. We emphasize that in the interim, our existing rules and policies with respect to these optimization measures (including the prohibition on technology-specific area code overlays) remain in effect.[19] We also emphasize that the optimization measures we adopt here today should not be viewed as substitutes for area code relief where it is required due to area code jeopardy situations. We intend to address these issues, as well as other numbering resource optimization strategies, in subsequent orders in this docket. We also seek comment on several matters relating to our findings in this *Report and Order* in an accompanying *Further Notice*.

III. MONITORING NUMBER USAGE FOR EFFICIENCY

A. Definitions of Number Category Usage

10. In the *Notice*, we observed that the current procedures for allocating numbering resources, which are set forth in the Central Office Code (NXX) Assignment Guidelines (CO

[18] *See* Report on the 310 Area Code, California Public Utilities Commission, March 16, 2000, submitted in compliance with Decision 99-09-067, *available at* <http://www.cpuc.ca.gov>.

[19] *See* Proposed 708 Relief Plan and 630 Numbering Plan Area Code by Ameritech – Illinois, *Declaratory Ruling and Order*, 10 FCC Rcd 4596, 4608, 4610-12 (1995) (*Ameritech Order*).

Code Assignment Guidelines),[20] do not impose adequate discipline on a carrier's ability to obtain and stockpile numbers for which it has no immediate need.[21] Consequently, carriers may request and receive additional numbering resources without demonstrating that they are actually utilizing efficiently the numbers already allocated to them. Moreover, there are no mechanisms to ensure that carriers' forecasting is an accurate reflection of the resources they will need in the immediate future, or that they are utilizing efficiently the resources already allocated to them. The absence of uniform definitions has especially hampered the monitoring of carrier number usage. We believe the first step in addressing these problems is to establish uniformly defined categories of numbering use and then to monitor, on a regular basis, how individual carriers are using their numbering resources.

B. Uniform Definitions

11. We tentatively concluded in the *Notice* that a uniform set of definitions for the status of numbers should be established for purposes of implementing the number optimization proposals set forth in the *Notice*.[22] We proposed fifteen categories and definitions of number use, and sought comment on whether the proposed definitions should be codified as Commission rules, or, in the alternative, be incorporated into the CO Code Assignment Guidelines and Thousand Block (NXX-X) Assignment Guidelines (Thousand Block Pooling Guidelines).[23] We also asked whether all fifteen of the proposed definitions were necessary and useful, and whether any additional definitions should be adopted.[24] In this section, we establish uniform definitions for six primary categories of numbering use. The definitions we adopt will also be employed in our discussion of the mandatory monitoring and reporting requirements that we establish in this *Report and Order*.

12. We adopt our tentative conclusion and find that uniform definitions for numbering use are essential for ensuring that numbering resources are used efficiently. We observe that there is broad agreement among all parties that standardized definitions are needed for better resource management.[25] We believe that establishing these definitions is an important step towards

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[20] CO Code Assignment Guidelines, INC 95-0407-008 (rev. Mar. 3, 2000). This document is available at <http://www.atis.org>.

[21] *Notice*, 14 FCC Rcd at 10353.

[22] *Id.* at 10340.

[23] *Id.* at 10341. *See also* Thousand Block (NXX-X) Pooling Administration Guidelines, INC 99-0127-023 (Feb. 28, 2000). The Thousand Block Pooling Guidelines describe the administration and assignment of thousand blocks to LNP-capable service providers. Moreover, the guidelines outline the processes used between the Pooling Administrator and code holders, LERG assignees, block holders, the CO Code Administrator and the NPAC. *Id.* at § 1.0. The Thousands Block Pooling Guidelines were developed to comport with the NANC recommendation that the NANPA serve as the thousands-block Pooling Administrator. *Id.* at § 2.5.

[24] *Id.*

[25] *See, e.g.* Massachusetts Department of Telecommunications and Energy (Massachusetts Commission), Attachment A, Outline of State Response to Numbering NPRM at 1. An exception is Cincinnati Bell Telephone (CinBell) comments at 3 (noting that it supports uniform definitions, but arguing that revising existing industry (continued….)

injecting a greater degree of discipline into the process of allocating and administering numbering resources.

13. In making our finding, we note that the industry has attempted to develop uniform definitions in the past. Despite its efforts, however, no single source for numbering usage categories has emerged and somewhat different definitions are contained in various industry publications. For example, identical categories of number usage are included in multiple industry documents, yet some of those categories are defined differently.[26] Given these inconsistencies, we conclude that we must establish and codify uniform definitions for number categories that are mutually exclusive, and accurately reflect the manner in which numbers are being utilized by carriers and their customers. Adoption of these definitions by the entire industry combined with our reporting requirements will enable us to obtain number utilization information in a consistent manner on a regular basis. This, in turn, will facilitate the accurate monitoring and tracking of the availability of numbering resources in the NANP.

14. To ensure that all carriers use the uniform definitions that we establish herein, we find it necessary to codify those definitions. Because our overall goal in defining number use categories is to improve the accuracy of utilization data reporting, we codify six mutually exclusive primary categories of number usage. These primary categories of use are *Assigned, Intermediate, Reserved, Aging, Administrative, and Available*. We conclude that limiting our codification to these six primary categories will assure that the aggregate of all numbers reported will equal the total of numbers given to a code holder by the NANPA or to a block holder by a Pooling Administrator. Because the categories that we are not codifying are, in fact, secondary categories of certain of the six major categories,[27] we provide the industry with guidance regarding the six primary categories under which they should be counted. We also find that the definitions for "Working Numbers" and "TNs Unavailable for Assignment" should be eliminated for tracking and reporting purposes because they are overly broad and would result in the double counting of certain numbers. Moreover, to ensure consistency and meet state commissions' needs for tracking these categories, we direct the NANC, with input from the National Association of Regulatory and Utility Commissioners (NARUC) and the states, to compile the uniform definitions for all secondary categories identified in the *Notice* and to determine where the definitions will be found. We will allow them 120 days to complete this task.

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established definitions would be costly and not justify the benefits). We reject this argument and find that using terms consistently to characterize number use does not impose significantly more direct cost on carriers than using them inconsistently. The direct cost of implementing uniform definitions requires little more than rearranging existing terms of individual definitions into standardized definitions.

[26] For example, "TNs Unavailable for Assignment" is defined differently in the CO Code Assignment Guidelines and the Thousand Block Pooling Guidelines. *See* CO Code Assignment Guidelines at § 13.0; Thousand Block Pooling Guidelines at § 14.0.

[27] The secondary categories are: (1) Employee/official numbers; (2) Location routing numbers; (3) Test numbers; (4) Temporary local directory numbers (TLDN); (5) Wireless E911 emergency service routing digits/key (ESRD/ESRK) numbers; (6) Dealer pool numbers; (7) Ported-out numbers; and (8) Soft dial tone numbers.

15. Like the majority of commenters, we agree that codification of the most significant definitions is necessary in light of the changes that often occur within the industry guidelines without input from parties other than industry members, the lack of uniformity within those guidelines, and the sometimes slow-moving industry consensus process.[28] We are sensitive, however, to industry concerns that codification could result in inflexible definitions or definitions that require constant revision and therefore believe that control over the definitions for secondary categories will provide the industry, in conjunction with the states, with the flexibility to make desired changes. We find that our decision to codify definitions for six primary categories of use is reasonable given that the subcategory definitions are the ones most susceptible to changes due to new technologies and adjustments in the demographic composition of service areas.[29] We delegate to the Common Carrier Bureau, in consultation with the Wireless Telecommunications Bureau, the responsibility to keep the definitions of the six major or primary categories current in light of technological changes and concerns of the states and industry members.

1. Assigned Numbers

16. In the *Notice*, we proposed that *assigned numbers* be defined as numbers working in the Public Switched Telephone Network (PSTN) under an agreement such as a contract or tariff at the request of specific customers for their use, or as numbers not yet working but having a customer service order pending.[30] We also sought comment on whether we should refine this definition by limiting the time during which a customer's number could be considered pending to three to five days.[31]

17. We find that the proposed definition of *assigned numbers* is reasonable and adopt it. Moreover, we agree with commenters arguing that dealer pools and reseller pools should not be treated as *assigned numbers* to the extent that they have not been assigned to a specific end user.[32] Once these numbers are assigned to a specific end user, however, the carrier making them available for assignment should categorize them as *assigned numbers*.[33]

18. We also conclude that numbers ported for the purpose of transferring an established customer's service to another carrier should be categorized as *assigned numbers*. Consistent with the INC guidelines and SBC's position, we conclude that the donating carrier

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[28] *See, e.g.* Texas Public Utility Counsel and National Association of State Utility Consumer Advocates (Texas Public Util. Counsel and NASUCA) at 22.

[29] For example, digital technology or urban areas may require a different mix of *administrative numbers* than analog technology or rural areas.

[30] *Notice*, 14 FCC Rcd at 10343.

[31] *Id.*

[32] AT&T comments at 12; GTE comments at 14. In this context, the phrase "specific customers for their use" refers only to end users.

[33] *But see infra* ¶ 21, clarifying that the carriers making such numbers available for assignment should initially catergorize them as *intermediate numbers.*

should classify *ported-out* numbers as *assigned numbers,* while the receiving carrier should not classify these numbers in any of our six defined primary categories.[34] By requiring only that the porting-out carrier report these numbers, we also seek to avoid double counting.

19. We also adopt a five-day limit on the time that a number may be held in pending status in the *assigned* category.[35] We find that this restriction is necessary to prevent carriers from classifying numbers as pending assignment when those numbers should more accurately be placed in the category of *reserved numbers*. No party has adequately justified why a number should be held as pending assignment for an unlimited amount of time. We disagree with SBC's argument that no limits on pending times are necessary because carriers have particular incentives to connect pending numbers.[36] We believe that the lack of limits creates incentives for misuse of this category. If carriers have such strong incentives to activate numbers, then five days should be adequate to complete activation in most instances. SBC's and Cincinnati Bell Telephone's claims that these limits could result in the reassignment of a number different than the number ordered by a customer also do not persuade us.[37] Carriers have the ability to categorize numbers in the *reserved* category if they foresee a longer delay in activating a number.

2. Intermediate Numbers

20. Some carriers maintain an *intermediate, i.e.,* secondary inventory of numbering resources for the purpose of providing numbers to other carriers (*e.g.*, resellers) and non-carrier entities (*e.g.*, retail dealers and unified messaging service providers).[38] These "intermediaries", in turn, make the numbers they receive from code or block holders available to their end user customers.[39] In the *Notice*, we proposed to define one category of such numbers, "dealer numbering pools," as a set of numbers allocated by a service provider to a retail dealer for use in the sale and establishment of service on behalf of that service provider.[40] We also sought comment on how carriers should classify dealer numbering pools in their inventories, how dealer numbering pools should be treated, and what, if any, limitations should be imposed on the assignment of these numbers.[41]

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[34] SBC comments at 36-37.

[35] Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 2.

[36] SBC comments at 35-36.

[37] SBC comments at 35-36; CinBell comments at 4-5.

[38] Unified message service providers use one number to consolidate (unify) incoming messages from multiple sources. For example, facsimiles and voice mail messages can be sent to one number and converted to e-mail messages.

[39] *See, e.g.*, AirTouch comments at 15.

[40] *Notice*, 14 FCC Rcd at 10343.

[41] *Id.*

21. We agree with commenters who opine that such numbers should not be categorized as *assigned* numbers because they have not been assigned to an end user.[42] We also find that such numbers should not be counted in the code or block holder's inventory because the code or block holder does not control the provision of these numbers to end users. We therefore conclude that numbers that are made available for use by another carrier or non-carrier entity for the purpose of providing telecommunications service to an end user or customer should be categorized as *intermediate numbers*. We clarify that the carrier making such numbers available for assignment by a non-carrier entity should categorize them as *intermediate numbers* only until they are assigned to an end user or customer by the non-carrier entity. Once *intermediate numbers* are assigned to an end user or customer the non-carrier entity, the carrier making such numbers available to the non-carrier entity should categorize them as *assigned numbers*.[43] *Intermediate numbers* include numbers provided for use by resellers, numbers in dealer numbering pools, numbers preprogrammed into customer premises equipment offered for retail sale,[44] and numbers assigned to messaging service providers. We also recognize that, with new technologies emerging everyday,[45] this list may not encompass all examples of such intermediate numbers. Our intent is to include in this category all numbers controlled or made available to an end user or customer by a carrier or non-carrier entity other than the code or block holder, and exclude all numbers assigned to end user customers of code or block holders.

3. Reserved Numbers

22. In the *Notice*, we tentatively concluded that *reserved numbers* should be defined as numbers held by service providers at the request of specific end use customers for their future use.[46] The NANC has recommended that carriers be permitted to hold aside a separate 12-month inventory of reserved numbers, with an additional six months of possible extensions.[47] In the *Notice*, we also sought comment on whether time limits should be imposed on the amount of time a code may be held in reserved status and suggested 45 days as an appropriate period of such a

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[42] AT&T comments at 12; GTE comments at 14.

[43] *See supra* ¶ 17.

[44] This would include such services, for example, as pre-paid cellular telephones.

[45] In an *ex parte* presentation, MCI WorldCom recommended that introduction of new services such as messaging services must be planned for in addition to efficiency measures such as pooling. MCI WorldCom also recommended that the Commission should direct the NANC to investigate the possibility of severing the relationship between the NPA-NXX and rate areas, which is already the case for messaging services and which it asserts is a root cause of number shortages. *See* Letter from Karen M. Johnson, MCI WorldCom, to Magalie Roman Salas, FCC, dated January 10, 2000.

[46] In the *Notice*, we included a detailed list of characteristics and guidelines for *reserved numbers*. *Notice*, 14 FCC Rcd at 10344. These were updated in a recent NANC report, Number Resource Optimization Working Group Report on Telephone Number Reservations, Report to the North American Numbering Council, as modified by the North American Numbering Council, August 25, 1999.

[47] *See* Number Resource Optimization Working Group Report on Telephone Number Reservations, Report to the North American Numbering Council, as modified by the North American Numbering Council, August 25, 1999.

limitation.[48] In addition, we requested comment on whether carriers should be required to pay a fee for numbers held in reserved status.[49] We noted that the practice of some carriers is to require fees from parties for whom they are reserving numbers as an assurance that the reservation would be honored. We requested comment on whether the same type of assurance, *i.e.*, imposition of a fee, should be required from reserving carriers themselves.[50]

23. We adopt our definition of *reserved numbers* as articulated in the *Notice*. We believe that this definition adequately separates *reserved numbers* from the other categories of use. We also adopt our proposal to reduce the amount of time that numbers may be held in reserved status to 45 days. After the 45-day reservation period, these numbers should be categorized as available numbers if they have not been assigned to a customer or end user. We reject the arguments of several parties who assert that longer reservation periods are necessary or that no time limits are needed.[51] The purpose of having *reserved numbers* is to give prospective clients some assurance that numbers with the characteristics those customers are seeking will be available to them in the near future. We find that limiting reservations to 45 days reasonably balances the needs of carriers to earmark and set aside a number or group of numbers for a particular customer against the objective of improving the efficiency of numbering resource use. Given the shortages of resources carriers are experiencing in some NPAs, we agree with several commenters that the NANC's proposed maximum 18-month reservation period is far too long a period of time to give such assurances, and therefore decline to adopt it.[52] Moreover, we conclude that permitting carriers to hold numbers in reserved status for a long period of time invites abuse.

24. In establishing the 45-day reservation period, we will not allow for any extensions. As a general matter, we find that permitting extensions would have the effect of undercutting the goals of establishing a specific time limitation. Our primary goal in setting the 45-day limitation is to ensure that numbers are used rather than warehoused. We believe that this, in turn, will result in more efficient use of numbers. We, therefore, reject the NANC's proposal to allow two 90-day extensions.

25. Notwithstanding our declining, at this time, to allow for extensions of the 45-day reservation period, we agree with MCI and the Minnesota Department of Public Service that the imposition of fees on extensions of the reservation period would encourage more efficient use of

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[48] *Notice*, 14 FCC Rcd at 10345.

[49] *Id.*

[50] *Id.*

[51] *See* Ohio Commission comments at 5-6 (recommending a 3-month inventory of reserved numbers); SBC comments at 39 (stating that reserved numbers do not need restrictions beyond the characteristics and broad guidelines being developed by the industry and that further restrictions will be ineffective or will deter customers from reserving numbers).

[52] Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 2-3; North Carolina Commission comments at 4.

numbers and act as a deterrent to warehousing or stockpiling.[53] In particular, we believe that MCI's proposal to impose a fee on extensions in the reservation period represents an opportunity to impose some market discipline on carriers' use of numbers. A fee on *reserved number* extensions balances a specific customer's desire to reserve access to certain numbers against society's cost of having to use additional NANP resources in order to meet the needs of subscribers of non-reserved numbers. Although the NANC considered and rejected the notion that fees for *reserved numbers* should be established,[54] it may have done this without fully considering our concerns over the real economic costs of maintaining a separate inventory for *reserved numbers* with extensive reservation periods. In this order, we request the NANC to reconsider this issue and determine whether a meaningful economic fee structure for *reserved numbers* could be developed, as MCI proposed. In its deliberations, the NANC should also consider how the receipts from such fees should be used. If an economically sound approach for establishing a fee structure on extensions for *reserved numbers* can be developed, we would reconsider our current position prohibiting the grant of any extensions for *reserved numbers*.

26. Due to their association with specific customers, *reserved numbers* represent a form of inventory distinctly separate from *available numbers*. Thus, we decline to adopt AT&T and WinStar's suggestions to reduce or eliminate reservation periods by classifying reserved numbers as *available numbers*.[55] We realize reservations play an important role in marketing local services in a competitive environment. Therefore, we do not wish to entirely eliminate the category of *reserved numbers*. For example, we are aware that customers frequently seek some advance assurances that a carrier can provide an individual or block of numbers before they sign with a particular carrier, and it is not our intent to limit this well-established convention by eliminating reserved numbers as a separate category.

27. We also reject the California Commission's recommendation that state commissions be given additional authority to narrow the definition of *reserved numbers* and set time limits on *reserved numbers*.[56] We believe that permitting each state to modify the definitions would contravene the benefits of having uniform nationwide definitions. It may also create a great deal of uncertainty for carriers, either because a state changes its rules or because the carrier operates in multiple states.

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[53] Minnesota Commission comments at 4; MCI WorldCom comments at 37-38.

[54] Number Resource Optimization Working Group Report on Telephone Number Reservations, Report to the North American Numbering Council, as modified by the North American Numbering Council, August 25, 1999, at 4-5.

[55] AT&T comments at 13; WinStar reply comments at 5, 16 (asserting that incumbents allow large customers to reserve indefinitely hundreds or thousands of numbers, or even multiple NXX codes for perceived or projected growth, and recommending that numbers be reserved for a reasonable but finite period after which they are made available to others).

[56] California Commission comments at 12 (recommending that states be delegated authority to narrow the definition of *reserved numbers* and set time limits on reserved numbers).

4. Aging Numbers

28. An *aging number* is a number in the aging process.[57] Aging is the process of making a disconnected telephone number unavailable for re-assignment to another subscriber for a specified period of time.[58] No party disagreed with this definition. An aging interval includes any announcement treatment period, as well as blank telephone number intercept period.[59] In the *Notice*, we sought comment on the standard aging intervals currently used by carriers, as well as whether we should set limits on the amount of time a number may remain in the aging status, *e.g.*, 90 to 120 days.[60]

29. We define *aging numbers* as disconnected numbers that are not available for assignment to another end user or customer for a specified period of time. Consistent with the Industry Numbering Committee (INC) Guidelines, we also adopt an upper limit of 90 days for residential numbers and 360 days for business numbers.[61] We follow the upper limits in the guidelines in this instance because they represent industry experience as well as aging requirements imposed by some states. We decline to set lower limits at this time. We observed recently that, in areas of acute number shortages, some carriers have reduced aging limits to one to seven days, or even zero in situations where no charges are incurred for calls of less than one minute in duration. Although we are concerned that too short of an aging period could cause confusion and unnecessary disruptions to subscribers, we believe that carriers can selectively reduce some aging limits to near zero if necessary without causing these problems. Also, in the interest of maintaining uniformity in our definitions and reporting requirements, we decline to permit states to modify our aging limits.

30. Wireline customers generally need longer aging periods than wireless service providers, because wireline customers usually have their numbers listed in directories. Moreover, wireline business customers require an even longer aging period than do wireline residential customers because they also advertise their numbers. We believe that the upper limits of aging

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[57] *See* CO Code Assignment Guidelines at § 13.0.

[58] *Notice*, 14 FCC Rcd at 10342.

[59] As part of the *aging number* management process, carriers may provide subscribers who terminate their telephone services with two types of recorded messages: intercept messages and announcement messages. An intercept message offers subscribers two options regarding intercept message contents: (1) the subscriber's new telephone number, or (2) a disconnect announcement, with no further information. The announcement message alerts the calling party that the telephone number is no longer in service, and is provided by carriers for a period of time after the intercept message period expires. Carriers may also offer announcement messages to subscribers in lieu of intercept messages. The duration of both intercept and announcement messages falls under state regulation.

[60] In the *Notice* we referred to draft industry guidelines of 30 to 60 days for residential, 90 to 365 days for business and 18 months for high volume call numbers. *Notice*, 14 FCC Rcd at 10343. These draft guidelines have since been adopted by the INC as official guidelines. *See* INC Guidelines for the Aging and Administration of Disconnected Telephone Numbers, INC 99-1108-024 (Nov. 8, 1999).

[61] *Id.* A third category of numbering use includes *high volume calling numbers* which we exclude from our time limit requirements.

periods in the guidelines offer sufficient assurance that customers receiving service from all sectors of the industry will avoid mistaken number contacts. Thus, we decline to adopt the shorter aging periods suggested by some parties.[62]

5. Administrative Numbers

31. In the *Notice*, we proposed that *administrative numbers* be defined in terms of specific administrative functions with the qualification that these numbers cannot be assigned to customers.[63] We also proposed that *employee/official numbers*, *Location Routing Numbers*, *test numbers*, *Temporary Local Directory Numbers (TLDN)* and *wireless E911 emergency service routing digits/key (ESRD/ESRK) numbers* all be included in the general category of *administrative numbers*.[64]

32. In this *Report and Order*, we broaden our proposed definition and adopt a definition of *administrative numbers* to include any numbers used by carriers to perform internal administrative or operational functions necessary to maintain reasonable quality of service standards. Commenting parties generally agreed with the proposed definition in the *Notice*. We further require that carriers must be able to identify, upon request, a specific administrative or operational function associated with each of the numbers they report in this category. We make this modification to ensure that all such numbers that have these characteristics are included in the *administrative numbers* category. We also clarify that the numbers identified in the *Notice* as *administrative numbers* are included in this definition. We agree with commenters that carriers should not be able to use the *administrative number* category to build and carry excessive numbering resources. Since we require the specification of the particular administrative function for which the reservation is made, we believe that our definition discourages such misuse.[65] We, decline however, to adopt the California Commission's recommendation that service providers be prohibited from converting *administrative numbers* to *assigned numbers* for customers at a later date.[66] We do not wish to trap unnecessarily numbers in the *administrative number* category after they are no longer required for this use.

33. In the *Notice*, we proposed that *soft dial tone numbers* be defined as numbers that permit restricted dialing, and that they be treated as *administrative numbers*. SBC agreed with our proposal.[67] Soft dialtone is simply a functionality that permits a caller to call emergency

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[62] *See e.g.,* WinStar reply comments at 5 (asserting that more restrictions on aged numbers are needed because ILECs hold these numbers well in excess of established limits); AirTouch comments at 15 (recommending a 90-day limit on aging for all carriers).

[63] *Notice*, 14 FCC Rcd at 10341.

[64] *Id.*

[65] California Commission comments at 11.

[66] California Commission comments at 11. The California Commission also proposed that specific regulations be enacted to discourage and prohibit indiscriminate and irresponsible allocation and use of numbers in this category. *Id.*

[67] SBC comments at 39.

services and sometimes receive incoming calls. Thus, we adopt our proposal and conclude that *soft dial tone* numbers should be counted as *administrative numbers.*

34. We also reject AirTouch's proposal that not more than .25% of numbers in any NXX be used for administrative purposes,[68] because AirTouch provides no basis for this particular quantitative limit. We are also concerned that such a limitation could impose an inflexible standard that would be burdensome for the NANPA to monitor.

6. Available Numbers

35. In the *Notice*, we proposed that numbers *available for assignment* be defined as numbers within existing codes (NXX) or blocks (NXX-X) that are available for assignment to subscriber access lines or their equivalents within a switching entity/point of interconnection (POI) and are not categorized as *assigned*, *dealer pools* (which we now define as intermediate), *administrative*, *aging* or *reserved*.[69] In this *Report and Order*, we adopt this general definition, but also clarify that *available numbers* is a residual category that can be calculated by subtracting the sum of numbers in the *assigned, reserved, intermediate, aged, and administrative* primary categories from the total of numbers in the inventory of a code or block holder. We incorporate this mathematical relationship in our reporting requirements.

7. Secondary Categories

36. In the *Notice*, we proposed to define eight additional categories of number use. These categories are: (1) *employee/official numbers*; (2) *Location Routing Numbers*; (3) *test numbers*; (4) *Temporary Local Directory Number*; (5) *wireless E911 emergency service routing digits/key numbers (ESRD/ESRK)*; (6) *dealer pool numbers*; (7) *ported-out numbers*; and (8) *soft dial tone numbers.*[70] Although we decline to define these additional categories, we will permit the NANC, with input from the National Association of Regulatory Utility Commissioners (NARUC) and state commissions, to define them. In doing so, we seek to achieve the same uniformity for these definitions as with the number categories we define herein. We also specify that these additional categories should be designated as subcategories of the primary categories. Specifically, ported-out numbers should be included as a subcategory of *assigned numbers. Test numbers*, *employee/official numbers*, *Location Routing Numbers*, *Temporary Local Directory Numbers*, *soft dial numbers* and *wireless E911 ESRD/ESRK numbers* should be included as subcategories of *administrative numbers.* Numbers such as *dealer number pools* should be included as a subcategory of *intermediate numbers.*

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[68] AirTouch comments at 14. This would set a maximum of 25 numbers per NXX that could be used for administrative purposes.

[69] *Notice*, 14 FCC Rcd at 10345.

[70] *Id.*

C. Mandatory Nature of Reporting

1. Mandatory Requirement

37. Establishing uniform definitions for number category usage is only the first step towards injecting a greater degree of discipline into the process of allocating and administering numbering resources. We believe that monitoring individual carriers' use of numbering resources also is necessary to ensure that numbering resources are efficiently used and that the NANP is not prematurely exhausted. More consistent, accurate, and complete reporting of historical and forecast data will serve multiple purposes. First, it will allow the NANPA to develop a comprehensive database on numbering resource demand, allocation, and use, thereby permitting it to accumulate a complete inventory of all numbering resources allocated to U.S. telecommunications service providers. These data are critical to the accurate forecasting of NANP and NPA exhaust. Second, it will deter carriers from requesting and holding excessive quantities of numbering resources for which they have no immediate need. Third, it will facilitate this Commission's ability to formulate appropriate national policy on numbering resource optimization by providing a complete picture of how numbering resources are being used in all markets. Finally, it will provide the states, which have authority to conduct area code relief, location-specific data that will enable them to make appropriate decisions on such matters.

a. Background

38. Currently, utilization and forecasting information is collected by NANPA through the Central Office Code Utilization Survey (COCUS). The COCUS solicits data on actual and projected CO code utilization for each NPA in the NANP. In our *Notice* we observed that for many reasons, the usefulness of the COCUS for purposes of monitoring numbering resource use is limited.[71] The most serious deficiency with the current mechanism is that data reporting by carriers is voluntary, not mandatory.[72] Another limitation that we identified is that the COCUS is reported annually. Thus, analyses based on the COCUS can become outdated due to changing conditions months before new data are collected and analyzed.[73] Finally, we observe that the utilization data collected through COCUS lacks sufficient specificity to enable the NANPA to determine how carriers are utilizing numbers assigned to them.[74]

39. Since 1999, the NANPA, at the Commission's request, has taken some steps to improve the quality of the COCUS data. For example, the COCUS survey was expanded to include the submission of utilization data. In addition, the NANPA has intensified its efforts to encourage carriers to submit COCUS data. Although these steps have somewhat improved the quality of the COCUS submissions, they have not resolved its underlying problems. In fact, there

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[71] *Id.* at 10353-54.

[72] *Id.* at 10353.

[73] *See* 47 C.F.R. § 52.13(c)(4).

[74] *Notice*, 14 FCC Rcd at 10353-54. We also noted that until very recently, the COCUS was limited to the reporting of forecast data. *Id.*

is general agreement among commenters that COCUS should be replaced with mandatory reporting requirements that are more comprehensive in nature.

b. Discussion

40. In the *Notice* we tentatively concluded that we should mandate all users of numbering resources to supply the NANPA with forecast and utilization data.[75] Virtually all commenters agree that mandatory reporting is necessary and state that the current voluntary reporting system is inadequate for tracking numbering use and projecting exhaust.[76] Many commenters agree that federal rules would ensure that all carriers, regardless of size, will supply forecast and utilization data to the NANPA.[77] We agree, and therefore mandate that all carriers that receive numbering resources from the NANPA (*i.e.*, code holders), or that receive numbering resources from a Pooling Administrator in thousands blocks (*i.e.*, block holders), report forecast and utilization data to the NANPA. We also require carriers that receive *intermediate numbers* to report forecast and utilization data for such numbers in their inventories to the NANPA to the same extent required for code and block holders. For *intermediate numbers* controlled by non-carriers (such as retailers or unified messaging service providers), the carrier that provides *intermediate numbers* to such entities must report utilization and forecast data to the NANPA for these numbers.

41. Reporting carriers shall report their utilization and forecast data by separate legal entity. Each reporting carrier shall be identified by its Operating Company Number (OCN) on the submission. Furthermore, the NANPA shall not issue new numbering resources to a carrier without an OCN.

42. The National Telephone Cooperative Association (NTCA) is one of the few parties that disagreed with our tentative conclusion regarding mandatory reporting for all carriers, asserting that no reporting requirement should be imposed on small carriers where exhaust is not a problem. In the alternative, it states that, at most, rural carriers should be required only to report changes in utilization, and that these carriers should be able to respond with "no change" where appropriate.[78] Because effective monitoring of all NANP resources is a necessary step in achieving our optimization goals, we decline to exempt small or rural code or block holders from the mandatory reporting requirement. We do however, authorize rural telephone companies, as defined in the 1996 Act,[79] to report their historical utilization data at the NXX level rather than at

[75] *Id.* at 10354.

[76] North Carolina Commission comments at 6.

[77] AT&T comments at 19-20.

[78] NTCA reply comments at 3.

[79] 47 U.S.C. § 153(37).

the thousand-block level in areas where Local Number Portability (LNP) is not available.[80] Moreover, we deem it reasonable, as suggested by NTCA, to allow any carrier whose forecast and utilization data have not changed from the previous reporting period to simply re-file the prior submission and indicate that there has been no change since the last reporting, or to report "no change."

2. Collection Procedures

a. Background

43. In the *Notice* we identified several data collection and NANP forecast models that had been proposed by NANPA and various industry members.[81] These models include the AT&T Minimalist model, the U.S West Top-down/Bottom-up Model, and the NANPA's proposed Line Number Utilization Survey (LINUS).[82] The NANC subsequently recommended a fourth model, the Hybrid, which is a synthesis of the aforementioned models.[83] In response to the Common Carrier Bureau's public notice seeking comment on a replacement for the COCUS, commenting parties focused their discussions on the LINUS and the Hybrid models.

44. The Minimalist model uses annual COCUS data, including utilization data, to measure working telephone numbers at the NPA level. The model then forecasts NPA and NANP exhaust using modeling techniques by combining the COCUS and utilization data with extensive forecasts of telephone number growth and projections of new entrant profiles and growth rates. The Top-down/Bottom-up Model involves a two-stage process. The first stage, Top-down analysis, uses historical COCUS data and mathematical modeling to develop initial exhaust forecasts for each area code. Once the NANPA determines that a particular NPA will exhaust within a selected period, the second stage of the model is applied. The second stage involves a Bottom-up analysis, which relies on user input similar to the existing COCUS system, but employs a mechanized data collection process. Both the Minimalist and the Top-Down/Bottom-Up models rely too heavily on modeling and forecasting techniques and not enough on actual data to address our and the state commissions' reporting and data needs. In both cases, the models focus exclusively on exhaust forecasts and, therefore, would not provide the information that we need to meet our number optimization goals.

45. LINUS contemplated the most extensive reporting requirements. It was envisioned to have two reporting components: an historical utilization reporting requirement and a

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[80] The 1996 Act defines number portability as "the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another." 47 U.S.C. § 153(30).

[81] *Notice*, 14 FCC Rcd at 10357-58.

[82] *Id.*

[83] This model was subsequently noticed on July 1, 1999. *See* Common Carrier Bureau Seeks Comment on the North American Numbering Council Recommendation Concerning Replacement of Central Office Code Utilization Survey, DA 99-1315 (NANC COCUS Recommendation).

forecasting reporting requirement. The frequency of historical utilization data reporting would depend on the location of the numbering resources. LINUS would require carriers in the top 100 metropolitan statistical areas (MSAs) to report quarterly, while non-rural MSAs outside the 100 largest MSAs would report semi-annually and rural NPAs would report annually. With respect to granularity, data in pooling NPAs would be reported at the thousands-block level and at the NXX level where there is no pooling. Finally, the model contemplated reporting on seven different categories of number use. The forecasting component would require quarterly reporting in the top 100 MSAs and semi-annual reporting elsewhere. Where pooling is implemented, it would require reporting by thousands-block at the rate center level while in other NPAs data would be reported by NXX at the NPA level. All forecast data would be reported electronically with codes broken out as either initial or growth codes. The NANPA envisioned applying multivariate probability density analysis to these data to forecast NPA and NANP exhaust.[84]

46. The Hybrid model, like LINUS, would establish both historical utilization and forecasting requirements. Reporting would depend on where the numbering resources are located and whether the NPA is expected to exhaust in the subsequent five years. In non-pooling NPAs, outside a five-year exhaust window, utilization and forecasting data would be required on at least an annual basis. For NPAs where pooling is implemented, or for NPAs that are projected to exhaust within the next five years, reporting would be semi-annual. The granularity of reporting under the Hybrid model would depend on whether pooling has been ordered in an NPA and whether carriers are required to pool or are exempt from the pooling requirement.[85] In NPAs where pooling has been implemented, carriers required to pool would report their utilization data at the thousands-block level while carriers exempt from pooling would report at the NXX level. In non-pooling NPAs that are within five-years of exhaust, carriers would report utilization data by NXX at the NPA level, while those outside the exhaust window would report at the NPA level. Under the Hybrid model utilization data would be reported as a single statistic, "telephone numbers unavailable," with service providers retaining the underlying data by telephone number status category for audit purposes or if requested by the NANPA.

47. Forecast data under the Hybrid model would be reported by thousands-block at the rate center level in pooling NPAs for pooling carriers and by NXX for non-pooling carriers. In non-pooling NPAs forecast data would be reported by NXX at the NPA level, regardless of whether it was in the exhaust window. All forecast data would be reported by "initial" and "growth" codes and would be filed electronically.[86] For the purposes of projecting exhaust, the reported data would be combined with historical data and mathematical modeling, with NPA specific assumptions used to develop the forecasts for NPA exhaust.

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[84] Multivariate probability density analysis is a statistical technique used to make projections based on expected probabilities.

[85] *See* NANC COCUS Recommendation Report, June 30, 1999, at 13.

[86] An initial code is the first NXX code that carriers receive in a rate center. Initial codes are also called "footprint codes." Growth codes are the additional codes that a carrier requests when its existing codes are exhausted.

b. Discussion

48. In their comments, several state commissions indicated support for LINUS because of its quarterly reporting requirement and greater granularity.[87] These states argued that reporting at this higher level of detail is necessary to monitor numbering use and forecast NANP and NPA exhaust. The Hybrid model has broad support within the industry.[88] Indeed, as we noted above, the NANC recommended adoption of this model to the Common Carrier Bureau. Several proponents of the Hybrid model, such as Ameritech and GTE, argue that the reduced reporting requirements contemplated by the Hybrid model are fully justified given its intended use. These parties argue that the data needed by the NANPA for predicting NPA and NANP exhaust is significantly less than the data needed for other analyses such as audits. Ameritech explains that reporting necessary to predict NPA exhaust requires aggregate information at frequent intervals while data used for audits requires specific data at more detailed levels upon demand. [89] Others support adoption of the Hybrid model over LINUS on the basis of cost, although these parties provide no direct cost estimates to support their contentions.[90]

49. We decline to adopt either the LINUS or the Hybrid model as the basis for our mandatory data reporting requirement. We find that reporting for seven categories of use and quarterly reporting, as proposed with the LINUS model, would substantially increase costs to both the carriers and the NANPA without providing commensurate benefits. Our objective is to request the minimal amount of data to enable us to meet the regulatory objectives identified above. We find the detailed and frequent reporting under the LINUS to be unduly burdensome.

50. Although we find some aspects of the Hybrid model, such as semi-annual reporting, to be reasonable, we also decline to adopt it as our reporting model. As described below, we believe that all utilization data should be reported at the thousands-block level.[91] We also find that reporting only the category of "numbers unavailable" will provide insufficient information for the NANPA, states, and this Commission to carry out our numbering administration responsibilities.

51. The data collection procedures we adopt, which shall replace the COCUS model

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87 Texas Public Util. Counsel and NASUCA comments at 24; Ohio Commission comments at 12.

88 *See* AT&T comments at 19; AT&T reply comments at 10; Bell Atlantic comments at 11; USTA comments at 5.

89 Ameritech comments at 18.

90 *See* PCIA comments at 32; GTE comments at 26. The only cost information regarding the cost of alternative models was provided in the NANC COCUS Recommendation Report. This report contains an analysis by the NANPA of relative cost for each proposed model compared to the cost of COCUS. It estimated that the cost of LINUS was estimated to be 7.5 times the cost of COCUS. The cost of the Hybrid was estimated to be 7 times the cost of COCUS. It was also noted that service providers estimated that the cost of the Hybrid model would be materially less than LINUS. No specific cost estimates were provided. *See* NANC COCUS Recommendation Report, June 30, 1999, at 32-33.

91 *See infra* ¶¶ 69-73.

currently being used by the NANPA to collect forecast and utilization data, are detailed below. As with the COCUS model, the NANPA shall continue to serve as the single point of contact for collection of forecast and utilization data. The NANPA's neutrality and ongoing interaction with code holders makes it the ideal repository for these data. Moreover, the NANPA is responsible for allocating numbers within the NANP and making forecasts of exhaust, and must rely on this data to carry out these functions.

52. The NANPA shall, within 15 days of the release of this *Report and Order,* develop a reporting form for both utilization and forecast data reporting and submit it both in paper and electronic form to the Common Carrier Bureau for review and submission to the Office of Management and Budget. The form shall incorporate the reporting requirements we establish in this *Report and Order*.[92] In addition to the utilization and forecast data, the NANPA shall ensure that it has a means of associating each carrier's reported data with carrier identification information. This information shall include: company name, company headquarters address, OCNs, parent company OCN(s), and the primary type of business in which the numbers are being used.

53. The NANPA indicates that the costs of the data collection will be minimized if the data are reported electronically.[93] Therefore, we will require all carriers filing data to file electronically. We understand that currently not all carriers will be able to file electronically initially, and that some carriers may have a long-term difficulty establishing electronic filing capability. Nonetheless, we believe that electronic filing is the most efficient and least costly method available. We have had *ex parte* discussions with the NANPA regarding this issue and we have been assured that electronic filing by carriers of all sizes and technical capabilities can be accommodated. The NANPA has contemplated three alternative methods for collecting data. For large and mid-sized carriers, the preferred method of reporting would be an electronic file transfer. The NANPA also believes that it can develop a spreadsheet format that could be used by smaller carriers that only have personal computers. As a second option, the NANPA indicates that it could develop Internet-based online access to the data base. Carriers could, in a secure fashion, use the Internet to log into the NANPA's website and enter their data manually into an electronic version of the reporting form. We note that every carrier that can dial up using an ISP can use this method, and that this method is not any more burdensome on a carrier than paper filing. Finally, as a last resort for very small carriers that do not have access to an ISP, the NANPA is considering permitting them to fax their data submissions and the NANPA would, as an enterprise service, transcribe the data into an electronic format. We direct the NANPA to develop and establish these data entry mechanisms within 45 days of the publication of this *Report and Order* in the Federal Register.

54. The NANPA shall examine each data submission for inconsistencies or anomalies. The NANPA shall work with the NANC to formulate criteria for determining what types of submissions should be deemed inconsistent or anomalous. If the NANPA identifies any significant

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92 *See infra* ¶¶ 53-73.

93 *See* Letter from Leonard S. Sawicki, NeuStar, to Magalie Roman Salas, FCC, dated December 21, 1999.

inconsistencies or anomalies in a carrier's data, the NANPA shall inform the submitting carrier of its findings, after which the carrier shall have five days to explain the inconsistencies or anomalies, or to resubmit the data. If, after the discussions with a carrier, the NANPA preliminarily concludes that that carrier's data are insufficient, then the NANPA shall report that preliminary conclusion to the commission in the state where the carrier is providing service, and to the Common Carrier Bureau. We delegate to the states the authority to make a determination on the validity of the data and to instruct the carrier on how any deficiencies should be remedied. The NANPA shall assign no additional resources to that carrier until the appropriate state commission has resolved all questions regarding the inconsistency or anomaly.

55. The NANPA shall also continue to compile, examine, and analyze the forecast and utilization data submitted by reporting carriers to carry out its NANP management responsibilities, which includes tracking and reporting on number utilization throughout the United States, and projecting the life of individual NPAs as well as the NANP. This includes, but is not limited to, conducting NPA and NANP exhaust studies, and developing a comprehensive database of NPA-NXXs that identify which numbering resources are being utilized, and which remain in the NANP inventory. We note that the NANPA is required under our rules to protect the confidentiality of proprietary data and competitively sensitive information.[94] We clarify that this requirement shall apply to electronic data as well.

56. Further, we direct the NANC to consult with the NANPA to develop an estimate of the costs the NANPA will incur to carry out the mandatory reporting requirements and provisions, including, but not limited to, compilation, examination and analysis of such data, as set forth in this *Report and Order*. We request the NANC to submit this cost estimate to the Common Carrier Bureau within 30 days of the release of this *Report and Order*.

3. Data Elements for Forecast Reporting

57. The current COCUS requires each reporting carrier to provide year-by-year, five-year projections of its resource needs. Although no party specifically addressed this issue, we believe that we should formally adopt this reporting requirement in our newly established reporting framework. We find that the five-year forecast mechanism provides the NANPA with sufficient information to make its NANP and NPA forecasts, while at the same time, not burdening carriers. Therefore, we require each carrier to provide a year-by-year, five-year forecast of its expected numbering requirements.

58. *Initial and Growth Codes*. Both the LINUS and the Hybrid models propose that forecast numbering resource requirements be reported in terms of initial and growth codes.[95] In

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[94] 47 C.F.R. § 52.13(c)(7).

[95] *See* NANC COCUS Recomendation Report, June 30, 1999, at 11. As stated above, an "initial" code is the *first* NXX code assigned to the carrier at a new switching entity, point of interconnection (POI) or unique rate center, and the NANPA assigns initial codes to the extent required to terminate traffic at the switch or POI. When an applicant requests more than one NXX code per rate center, switching entity or POI, the first NXX code assigned to that rate center is considered an initial code and all of the other NXX codes are considered growth codes. A (continued….)

its comments, the NANPA continues to support this proposal,[96] and no commenting party opposed it. This distinction is important in forecasting NANP exhaust because it permits the NANPA to distinguish between codes that are being requested to establish a footprint from those that are being used to expand service within existing coverage areas. We believe this distinction is consistent with our desire to have as complete a picture as possible of numbering resource use, and therefore require carriers to separate initial from growth codes in their forecasts.

4. Data Elements for Utilization Reporting

59. In the *Notice* we requested comment on the specific data elements that carriers should be required to report.[97] We sought comment on whether all NXX code holders should be required to report the status of all telephone numbers within the NXX blocks assigned to them (using the numbering status definitions defined in the *Notice*), or whether more aggregated reporting would provide sufficient data to track number utilization accurately.[98]

60. We will require carriers to report five categories of numbers: *assigned, intermediate, reserved, aging,* and *administrative.*[99] The need for use-specific data is widely supported by the states and at least some carriers have agreed that uniform reporting of these use categories would be reasonable.[100] We believe that the additional detail provided by reporting on these major uses of numbers will improve the accuracy of the NANPA's projections. In addition, the NANPA's ability to evaluate requests for new NXX blocks will be substantially improved by having detailed information on how numbers are being used. Similarly, the states, which are responsible for area code relief, will benefit from having this specific data to use in monitoring carrier requests for numbering resources.

61. We reject the assertion of several commenters who argue that only highly aggregated data need be reported."[101] These commenters generally believe that the exclusive purpose of routine reporting of forecast and utilization data is to predict the exhaust of NPAs and the NANP, so there is no need to collect utilization information by numbering use category. We

(Continued from previous page)
"growth" code is an NXX code requested for an established switching entity, POI or rate center when the telephone numbers available for assignment in previously assigned NXX codes will not meet expected demand.

96 *See* NANPA comments at 7; Ohio Commission comments at 12.

97 *Notice*, 14 FCC Rcd at 10355.

98 *Id*.

99 Because the sixth category, "available numbers," is a residual category, we will not require carriers to report such numbers.

100 *See* Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6. *See also* Letter from Luisa L. Lancetti, Counsel to AirTouch, to Magalie Roman Salas, FCC, dated February 2, 2000.

101 SBC, for instance, proposes that data reported to the NANPA should consist of the total quantity of *assigned numbers*, *numbers unavailable for assignment*, and *numbers available for assignment*. SBC comments at 52. *But see* Bell Atlantic comments at 10-11 (recommending that carriers should report only *available numbers*).

disagree; these data are especially valuable to identify carriers that are holding excessive inventories of numbers and to facilitate reclamation of those numbers. We also disagree with some of the states that argue that carriers should report on all categories of number utilization to the NANPA.[102] As we previously noted, our goal is to balance the need for data against costs of collecting, providing, and analyzing it, and we find that requiring reporting of only the five major categories listed above properly balances these two concerns.

62. We also adopt specific record-keeping requirements for audit purposes. Although we do not, in this *Report and Order*, set forth auditing requirements, we anticipate doing so in a subsequent order in this docket. We believe that all carriers should maintain detailed internal records of their number usage in categories more granular than the five for which they are required to report not only as a good business practice, but to facilitate auditing by the NANPA and by state commissions in the future.[103] We therefore require carriers to maintain internal records of their numbering resources for the additional eight subcategories of numbers identified in this *Report and Order*,[104] in addition to the five categories which they must report.[105] Carriers required to track the additional eight subcategories of numbers should maintain this data for a period of not less than five years. We clarify, however, that these additional categories of number usage need not be reported to NANPA at this time. The record does not indicate that the requirement to track the eight subcategories of numbers would be burdensome to rural carriers. But to the extent that non-LNP-capable rural carriers find this record-keeping requirement to be burdensome, we would entertain waiver requests, including joint waiver requests.

5. Frequency of Reporting

63. In our *Notice* we tentatively concluded that carriers should report utilization and forecast data on a quarterly basis, rather than the current annual reporting cycle.[106] We proposed this reporting frequency because the pace of number exhaust has substantially increased in many parts of the country and we believed that annual data would fail to provide an accurate picture of these changes. In establishing a reporting frequency, we sought comment on whether we should differentiate between carriers in high-growth and low-growth NPAs and requested commenters to explain how we should distinguish between them.[107] In the alternative, we sought comments on the possibility of establishing a reporting cycle modeled after the current "Jeopardy COCUS," where an additional round of forecast data collection is required when jeopardy is first declared in

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[102] Massachusetts Department of Telecommunications and Energy, Attachment A, Outline of State Response to Numbering NPRM comments at 6.

[103] SBC comments at 52; Bell Atlantic comments at 10-11; Ameritech comments at 18.

[104] The 8 subcategories are: (1) *soft dialtone numbers*; (2) *ported-out numbers*; (3) *dealer number pools*; (4) *test numbers*; (5) *employee/official numbers*; (6) *Local Routing Numbers*; (7) *Temporary Local Directory Numbers*; and (8) *wireless E911 emergency services routing digits/key (ESRD/ESRK) numbers*.

[105] *See infra* ¶ 60.

[106] *Notice*, 14 FCC Rcd at 10356.

[107] *Id.*

an area code.[108] With respect to this alternative, we requested comment on whether such a strategy would be sufficient to provide additional utilization and forecast data in high-growth NPAs.[109] Finally, we sought comment on whether there are other appropriate distinctions that should be drawn among carriers with respect to reporting frequency.[110]

64. As a general matter, more frequent reporting of utilization and forecast data should improve the NANPA's ability to forecast NPA and NANP exhaust, as well as our ability to develop cogent policy with respect to numbering resources. More frequent reporting can also spur carriers into improving their management of numbering resources. The need for more frequent reporting is particularly acute in NPAs where pooling will be implemented because these NPAs, almost by definition, have high demands for numbering resources. The need for more frequent reporting must be balanced, however, against the cost such reporting will impose on the carriers and the NANPA.

65. Although many of the states and some carriers strongly endorse quarterly reporting, we are reluctant to impose this requirement.[111] The record does not support such frequent reporting at this time given the additional costs quarterly reporting would impose on carriers. We also question whether a quarterly cycle would give the NANPA sufficient time to compile the reported data and analyze it. Therefore, we accept the recommendations of AT&T, GTE, PCIA, the NANC and others, who argue that the maximum number of reports that any carrier should be required to file in any year is two and that, in markets where there is little change in numbering utilization, annual reporting is adequate.[112]

66. Many of the carriers responding to our *Notice* proposed that we adopt the frequency scheme contained in the Hybrid model. Under the proposed Hybrid model, carriers operating in NPAs where pooling has been implemented or where jeopardy is projected to occur within the next five years would report semiannually. All other carriers would report annually. The advantage of this requirement is that it removes all subjectivity from the decision of how carriers should report. While this formalistic scheme is theoretically appealing, we are reluctant to adopt it. The problem with this approach is that area code exhaust, at this time, cannot be reliably projected. The NANPA's recent 1999 COCUS and NPA exhaust analysis demonstrates the difficulty in accurately projecting exhaust.[113] The report compares the predicted exhaust date for each active NPA in the United States as of April 1999 and as of December 1999. Between these

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[108] *Id.*

[109] *Id.*

[110] *Id.*

[111] Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6; California Commission comments at 11-13; Pennsylvania Commission comments at 12; Pennsylvania Consumer Advocate and NASUCA comments at 5.

[112] GTE comments at 27; PCIA reply comments at 32.

[113] NANPA Report to the NANC, prepared by NeuStar, January 18, 2000.

two dates spanning nine months, the NANPA changed the projected exhaust dates for 70 NPAs by an average of 3.8 years by NPA.[114] For each of these NPAs, the NANPA included an explanation for the difference in the exhaust projections. Several times the NANPA cited an increase in the code issuance growth rates that were four or more times higher than those projected just nine months prior to that. This demonstrates that change can happen very quickly. Thus, rules based on projected exhaust time horizons are not sufficient for establishing a reporting frequency.

67. The basic frequency of reporting shall be semi-annually. We, however, delegate to the state commissions the authority to reduce the frequency of reporting for carriers in their states to annually.[115] For example, state commissions may find it desirable to decrease the reporting frequency, where an NPA is significantly far from projected exhaust, or where there is very little demand for numbering resources and low growth expectancy because of limited competition or sparse population. State commissions must notify the Common Carrier Bureau and the NANPA prior to exercising this delegated authority. Each carrier shall submit to the NANPA forecast and utilization data on or before February 1, for the period ending on December 31, and on or before August 1, for the period ending on June 30 of each year. Carriers in NPAs where state commissions reduce the filing requirement to an annual reporting shall report on August 1 of each year. All carriers shall file their first report no later than August 1, 2000.

6. Granularity of Reporting

a. Geographic Scope of Reporting

68. In our *Notice* we asked whether we should require carriers to report their forecast and utilization data per NPA or per rate center.[116] Commenters were generally split on this question. Several commenters, representing primarily state commissions, supported reporting at the rate center level.[117] Carriers, on the other hand, argued that reporting at the NPA level would be adequate except where pooling is taking place.[118] NeuStar, the current NANPA, has indicated that, for the purpose of reporting utilization data, carriers need not report the name of the rate center in which the NXX is being used because that information could be obtained from the Local Exchange Routing Guide (LERG).[119] To ensure that the reporting requirement is not unduly burdensome, we conclude that reporting data at the NPA level is sufficient for mandatory semi-annual reporting of historical utilization data. For forecast data reporting, we adopt the approach contained in the Hybrid model, which would require non-pooling carriers to report their forecast

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114 *Id.*

115 Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6.

116 *Notice*, 14 FCC Rcd at 10355.

117 Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6.

118 Bell Atlantic comments at 10; Ameritech comments at 20; AT&T comments at 21.

119 *See* Letter from Leonard S. Sawicki, NeuStar, to Magalie Roman Salas, FCC, dated December 21, 1999.

data at the NPA level and pooling carriers to report their forecast data at the rate center level.

b. Reporting at the NXX Level or Thousands-Block Level

69. In our *Notice*, we stated that we could require numbering utilization data to be reported per full NXX or per thousands block.[120] We noted the possibility that carriers engaged in pooling might have to report at the thousands-block level while we would permit non-pooling carriers to report at either the NXX level or at the thousands-block level. We asked commenters to discuss the merits of requiring all carriers to report at the thousands-block level, as opposed to requiring carriers to report at the thousands-block level only when that NXX is subject to pooling.[121] We then asked the commenters to compare the benefits of such detailed reporting with its cost.[122] We also considered letting all carriers report at the NXX level, unless the numbering resources were in one of the largest 100 MSAs or within a jeopardy NPA.[123]

70. We also recognize that, in areas where LNP is not available, the burden on some small or rural carriers may outweigh the value of such granular reporting data. Therefore, we will permit rural telephone companies, as defined in the Act,[124] to report their utilization data at the NXX level. All other carriers must report their utilization data at the thousands block level.

71. Some wireline companies oppose uniform thousands-block reporting in favor of a policy of limiting such reporting to regions where thousands-block number pooling has already been implemented.[125] Similarly, the wireless industry generally objects to uniform thousands-block reporting because wireless carriers can receive numbers only in full NXX blocks, and cannot participate in thousands-block number pooling.[126] These commenters do not persuade us. As we previously stated, number utilization data will be used for more than simply projecting NPA and NANP exhaust. We believe that thousands-block reporting fits into our general reporting scheme because it provides a level of detail that will permit decision making with respect to issues such as (1) the efficacy of thousands-block number pooling in specific NPAs, (2) identifying thousands blocks available for pooling, and (3) monitoring preservation protocols for protecting uncontaminated thousands-blocks. We note that several state commissions share this view.[127] In areas where LNP is not available, however, rural carriers tend to use less numbering

120 *Notice*, 14 FCC Rcd at 10355-56.

121 *Id.* at 10355.

122 *Id.* at 10355-56.

123 *Id.* at 10356.

124 47 U.S.C. § 153(37).

125 CinBell comments at 8; Ameritech comments at 20; Bell Atlantic comments at 10; GTE comments at 23.

126 PCIA comments at 32.

127 *See, e.g.*, Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM comments at 6; Ohio Commission comments at 9; North Carolina Commission comments at 6; California Commission comments at 13-14.

resources. We therefore exempt rural carriers in non-LNP areas from the requirement to report their utilization data at the thousands-block level; rural carrier in non-LNP areas will be required to report their utilization data only at the NXX level; and all other carriers must report their utilization data at the thousands-block level.[128]

72. We do not believe that the cost of thousands-block reporting will be significantly higher than reporting at the NXX level if the data are managed electronically. Moreover, no cost estimates were submitted into the record. As noted above, we find that for any reporting system to operate efficiently, all carriers must report electronically. As a consequence, we believe that all or virtually all carriers should use electronic means to track their use of numbering resources. With electronic tracking of numbers, the level of detail contained in reports to the NANPA is largely a matter of the up-front programming effort in designing a tracking system and preparing reports from it. We note that carriers with similar systems could jointly design such a program, and share the cost. This would be especially true for small carriers. Further, we believe that the difference in programming costs between NXX and thousands-block reporting will be small. Yet, we believe the benefits of more detailed information will be substantial. Greater detail will result in better management of the NANP's resources. Consistent reporting by all carriers may also reduce the NANPA's costs, to the extent that reporting at different levels of aggregation will require the NANPA to design databases and analyses that can accommodate mixed data.

73. For forecast data, we require carriers to develop their forecasts of numbering resource needs based on whether the forecast is for resources in a pooling or non-pooling NPA and whether they will be pooling. In pooling areas, forecast data shall be reported at the thousands-block per rate center level for pooling carriers and at the NXX level per rate center for non-pooling carriers.[129] In non-pooling areas, forecast data shall be reported at the NXX per NPA level because carriers will receive their resources at this level.

7. State Commissions' Access to Data and Confidentiality of Data

a. Background.

74. In the *Notice*, we sought comment on what, if any, special provisions should be established to protect the confidentiality of data disclosed to the NANPA, the Commission, and state commissions.[130] We noted that under Exemption 4 of the Freedom of Information Act (FOIA), the Commission need not disclose "commercial or financial information . . . [that is] privileged or confidential."[131] We sought comment on what specific information, based on the

[128] *See supra* ¶ 42.

[129] This reporting scheme was supported by the NANC. *See* NANC COCUS Recommendation at 33-34.

[130] *Notice*, 14 FCC Rcd at 10356.

[131] *See id.*, *see also* 5 U.S.C. § 552(b)(4). Under FOIA, the Commission is required to disclose agency records on request, unless they contain information that fits within one or more of the exemptions from the Act. Even when particular information falls within the scope of a FOIA exemption, agencies are generally afforded the discretion to disclose the information on public interest grounds. *Chrysler Corp. v. Brown*, 441 U.S. 281, 292-94 (1979).

proposed reporting requirements, would fall within this exemption.[132] The NANC recommended that states be given access to aggregate utilization data.[133] Also, the NANC recommended that states be allowed to obtain carrier-specific data only when a legally enforceable confidentiality agreement is in place.[134] We sought comment on the NANC's recommendations concerning use of confidential data by the state commissions.[135]

b. Discussion

75. As the Ohio commission correctly notes, numbering resource management is a cooperative effort between the Commission, states, and the NANPA.[136] We find that the states have legitimate reasons for obtaining disaggregated, carrier-specific data. The states are responsible for NPA relief decisions and other delegated numbering issues. Such decisions must be based on specific utilization data. We are convinced that state commissions will be better able to meet their obligations with respect to area code relief with the information that we have determined is necessary. Therefore, we grant all states access to the semi-annual reported data, subject to appropriate confidentiality protections as described below. We also find that the Pooling Administrator shall have access to carrier specific data and must protect proprietary and competitively sensitive information from public disclosure.

76. We reject North Carolina's assertion, however, that the states should continue to have the authority to collect additional utilization and forecast data independently of what we are ordering the carriers to report to the NANPA. We will not delegate authority to the states to impose additional regularly scheduled reporting requirements on any carriers. Such independent authority would undermine the purpose of establishing regularly scheduled federal reporting requirements, namely a uniform standard that all carriers could use in their record keeping and reporting activities. We have carefully reviewed the various proposals for reporting and have balanced the need for information against industry and the NANPA costs and have set forth our determinations above. Therefore, in granting states access to the federally ordered reports, we are eliminating the need for states to require carriers to report utilization and forecast data on a regular basis. Thus, we supersede the authority specifically delegated to some states to require such reporting.[137] We do not intend, however, to supplant independent state authority exercised pursuant to state law unrelated to number administration, but we encourage state commissions to

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132 *Notice*, 14 FCC Rcd at 10356.

133 *See* NANC Meeting Minutes, Nov. 18-19, 1998.

134 *Id.* As a sanction, NANC proposes that a state's violation of the confidentiality requirement would be the loss of the prerogative to obtain such data in the future. *Id.*

135 *Notice*, 14 FCC Rcd at 10357.

136 Ohio Commission comments at 13.

137 *See California Delegation Order,* 14 FCC Rcd at 17497, 17499; *Florida Delegation Order,* 14 FCC Rcd at 17521; *Maine Delegation Order,* 14 FCC Rcd at 16445-46, 16450; *Massachusetts Delegation Order,* 14 FCC Rcd at 17460; *New Hampshire Delegation Order* at ¶¶ 12, 13, 17; *New York Delegation Order,* 14 FCC Rcd at 17478, 17480; *Ohio Delegation Order* at ¶ 16; *Texas Delegation Order* at ¶ 28; *Wisconsin Delegation Order* at ¶¶ 12, 15.

rely on the reporting requirements that we adopt herein. Moreover, we do recognize that from time to time a state may need to audit a specific carrier and will need access to more granular data. Therefore, our prohibition on state-ordered reporting does not apply in instances where states need to gather data for a specific purpose, as long as these data reporting requirements do not become regularly scheduled state-level reporting requirement.

77. Several carriers, including GTE, AT&T, and PCIA, argue for limiting state access to the utilization forecast data.[138] These parties believe that only aggregate data are necessary to assist the states in their code relief activities.[139] GTE and PCIA assert that the states need rely only on the NANPA for NANP exhaust and area code relief information.[140] PCIA asserts that, with respect to NPA exhaust, it is the NANPA's responsibility to inform the states of the status of an NPA, and therefore the states have no real need to see carrier-specific data.[141] PCIA and AT&T are concerned that the states might publicly disclose these commercially sensitive data.[142] We reject these arguments. These commenters ignore the fact that the states have an important role in managing numbering resources and providing area code relief. As discussed more fully below, we are requiring states that are seeking access to the reported data to explicitly treat data received from the NANPA as confidential.

78. Most commenters generally agree that the number utilization and forecast data submitted by carriers should be treated as confidential and should be protected from public disclosure.[143] Carriers argue that this data is highly sensitive "commercial information" and would in effect provide competitors access to their business plans and strategies, location of customers, expansion plans and market growth.[144] We agree, and find that disaggregated, carrier-specific forecast and utilization data should be treated as confidential and should be exempt from public disclosure under 5 U.S.C. § 552(b)(4).[145]

79. We further agree with commenters that aggregated data (such as each carrier's NPA wide utilization rate and number of NXXs assigned) do not require the type of confidential protections that we adopt here.[146] Aggregated data do not provide competitors with detailed

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138 AT&T comments at 19; GTE comments at 24; PCIA comments at 31-33.

139 GTE comments at 24.

140 GTE comments at 24; PCIA comments at 33.

141 PCIA comments at 33.

142 PCIA comments at 33; AT&T comments at 19.

143 Nextel comments at 21; RCN comments at 6; Level 3 comments 6; PCIA comments at 32.

144 GTE comments at 29; Sprint comments at 14-15; Ameritech comments at 20-21; MediaOne comments at 18-19; Connect comments at 7.

145 *See* MCI WorldCom comments at 42.

146 SBC comments at 55; MCI WorldCom comments at 42; GTE comments at 29; AT&T comments at 19; Ameritech comments at 21.

information on the level of a carrier's activity or operational plans in a specific local exchange market.

80. Despite our conclusion that disaggregated utilization and forecast data should be treated as confidential information and should not be publicly disclosed, we also recognize, as do many commenters, that state commissions may require access to this data to effectively carry out number administration duties.[147] In fact, the record indicates that it is not uncommon for state commissions to receive confidential data from carriers,[148] and that some states have already received such data and conducted utilization studies on their own. In seeking to balance this need with confidentiality concerns, some commenters suggest that state commissions receive only aggregate carrier data,[149] rather than data on individual carriers, or that state commissions only receive data where there is a legally enforceable confidentiality agreement in place.[150] As discussed above, we decline to adopt either restriction.

81. We find that the value to state commissions of access to these data outweighs the confidentiality concerns expressed by carriers required to submit forecast and utilization data to the NANPA. We have delegated authority to state commissions to initiate area code relief planning, implement area code relief, adopt NXX rationing in conjunction with area code relief decisions, order voluntary thousands-block number pooling trials, and set aside a certain number of NXX codes for thousands-block number pooling.[151] In this *Report and Order*, we delegate additional numbering authority to state commissions to require more efficient management of thousands blocks and to implement mandatory thousands-blocking pooling under certain conditions. We find that their ability to carry out these delegations of authority would be hampered if they are not allowed access to carrier forecast and utilization information. For example, number forecast and utilization data can better enable state commissions to assess when, where, and the type of area code relief measure that should be adopted. Therefore, state commissions shall have access to the disaggregated data submitted to the NANPA, and may choose to request copies directly from carriers, provided that the state commission has

147 SBC comments at 55; California Commission comments at 15; New Jersey Commission comments at 3; CTIA comments at 15; MCI WorldCom comments at 39; Sprint comments at 14-15.

148 Maine Commission comments at 11.

149 PCIA comments at 31.

150 Choice One comments at 6; RCN comments at 6; Level 3 comments at 7.

151 *See* Implementation of the Local Competition Provision of the Telecommunications Act of 1996, *Second Report and Order and Memorandum Opinion and Order*, 11 FCC Rcd 19392, 19512, 19516 (1996) (*Local Competition Second Report and Order*); *see also Pennsylvania Numbering Order*, 13 FCC Rcd at 19025, 19027-30. Area code relief refers to the process by which central office codes are made available when there are few or no unassigned central office codes remaining in an existing area code and a new area code is introduced. 47 C.F.R. § 52.19 (a)-(b). Area code relief includes planning for area code "jeopardy," which is a situation in which central office codes may become exhausted before an area code relief plan can be implemented. Several states have also received interim authority to implement certain numbering resource optimization measures (*e.g.*, establish NXX code allocation standards, reclaim unused or underutilized numbering resources, require sequential numbering assignment).

appropriate protections in place (which may include confidentiality agreements or designation of information as proprietary under state law) that would preclude disclosure to any entity other than the NANPA or the Commission. We decline to require a specific mechanism to ensure confidential treatment.

82. Some state commissions have requested access to other information such as carriers' applications for initial or growth numbering resources. Like forecast data, this information reveals commercial information, business plans and strategies, expansion plans, location of customers, and market growth. Consequently, we find that these applications should be deemed confidential. We will not limit a state commission's access to applications for initial or growth numbering resources, but we require the state commissions to treat this data, as well as forecast and utilization data, as confidential. We are aware that there are two states that have "open records" statutes that may prevent the state from providing confidential protection for such sensitive carrier information.[152] In situations such as these, we will work with the state commissions to enable them to obtain access to such information in a manner that addresses the state's need for this information and also protects the confidential nature of the carrier's sensitive information. We also clarify that state commissions must continue to permit the NANPA to process requests for numbering resources in a timely fashion after receipt of such information.

8. Enforcement

83. In our *Notice* we asked parties to comment on various enforcement issues and what actions we should take to enhance the enforceability of numbering utilization and optimization.[153] Some of the enforcement measures that we discussed included giving the NANPA the authority to withhold numbering resources as a sanction for violating CO Code Assignment Guidelines, especially where the violation involves failure or refusal to supply accurate and complete utilization or forecast data.[154] We sought comment on the tentative conclusion and on the circumstances in which the NANPA should be empowered to withhold numbering resources.[155]

84. Although we decline to address all of the enforcement issues raised in the *Notice* at this time, we find it appropriate to address, in light of our imposition of a mandatory reporting requirement, our tentative conclusion that the NANPA should be empowered to withhold numbering resources as a sanction for failure or refusal to comply with any mandatory reporting requirements.[156] We adopt our tentative conclusion and order the NANPA to withhold numbering resources from any U.S. carrier that fails to provide its utilization and forecast

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[152] *See* Texas Government Code, Chapter 552; Georgia Official Code § 50-18-70.

[153] *Notice*, 14 FCC Rcd at 10362.

[154] *Id.*

[155] *Id.*

[156] Several commenters recommend this sanction. *See, e.g.,* Bell Atlantic comments at 12; Pennsylvania Consumer Advocate at 5.

information as mandated in this *Report and Order* until such information has been provided. There is broad support for this requirement.[157] If it appears that a carrier has failed to provide the necessary reports, NANPA shall notify the carrier in writing and allow ten days for the carrier to either provide the report or show that it already has done so. We believe that this step is necessary to ensure that the NANPA, states, and we have information from all U.S carriers to facilitate proper management of the NANP. With respect to non-U.S. carriers participating in the NANP, we request that they voluntarily comply with the reporting requirements that we have established in this *Report and Order*. Although these carriers are not obliged to track and report numbering resource use, we believe that most carriers will support our efforts to ensure that the NANPA has the best and most comprehensive picture of numbering resource use. This will greatly aid in extending the life of the NANP and will help postpone the need for the very costly process of expanding the NANP.

D. Verification of Need for Numbers

a. Background

85. Under the current CO Code Assignment Guidelines, numbering resources are assigned in blocks of 10,000, referred to as central office codes or NXX codes, to entities (code holders) for use at a switching entity or point of interconnection (POI)[158] that they own or control.[159] The NANPA assigns NXX codes pursuant to the assignment criteria specified in the CO Code Assignment Guidelines on a first-come, first-served basis.[160]

86. Carriers generally obtain initial codes to establish a commercial presence, or "footprint," in a particular rate center or geographic area. The CO Code Assignment Guidelines require the applicant to certify that it needs an initial code to meet routing, billing, regulatory or tariff requirements.[161] The CO Code Assignment Guidelines, however, specify that utilization criteria or projection will not be used to justify an initial NXX code assignment.[162]

87. Under the CO Code Assignment Guidelines, an applicant for a growth code must certify that existing codes associated with that switch, POI, or rate center will exhaust within 12 months, and must submit to the NANPA a Months-to-Exhaust (MTE) Worksheet in order to

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[157] Bell Atlantic comments at 12; AT&T comments at 24; CinBell comments at 9; Ohio Commission comments at 14; Wisconsin Commission comments at 4.

[158] The POI is the carrier's physical point of interconnection to the public switched telephone network (PSTN) for the purpose of interchanging traffic on the PSTN.

[159] CO Code Assignment Guidelines at §§ 3.1, 4.1.

[160] *Id.* at § 4.4.

[161] *Id.* at § 4.1.3. An applicant may also obtain an initial NXX code in order to establish an initial Location Routing Number (LRN) per POI or switching entity for each Local Access and Transport Area (LATA), if the carrier has no existing resources available for LRN assignment. *Id.* at § 4.1.3.1.

[162] *Id.* at § 4.1.

obtain a growth code.[163] Growth code applicants are also required to maintain the MTE Worksheet in their files for audit purposes. In jeopardy NPAs, applicants seeking a growth code must certify that existing NXX codes will exhaust within six months.[164]

b. Discussion

88. With the advent of local competition and the introduction of new technologies, we have seen an exponential increase in requests for numbering resources. Thus, it has become necessary to adopt policies to ensure that carriers request and receive numbering resources only when and where needed.[165] Unlike the current process, which for the most part requires carriers to "certify" but not prove their need for additional numbering resources, we implement a process that requires carriers to demonstrate that they need numbering resources to provide services. Often numbering resources have been assigned prematurely[166] or used inefficiently.[167] The absence of reliable needs-based verification standards has resulted in numbering resources being distributed to carriers in a less than efficient or optimal manner. State commissions that have been faced with unprecedented demands for NPA relief share our concern over the manner in which numbering resources are being assigned and used.[168]

89. The Pennsylvania Commission states that the absence of numbering assignments has allowed carriers to build excessive inventories for which they do not have an immediate need, suggesting that allowing carriers merely to "certify a need" is inadequate.[169] The current self-certification process, according to the Pennsylvania Commission, resulted in two carriers receiving over 100 central office codes (over one million numbers) upon activation of a new area code in Western Pennsylvania; this, in turn, shortened the projected exhaust date for the new area

[163] *Id.* at § 4.2.1. The CO Code Assignment Certification Worksheet-TN Level MTE Worksheet, set forth in Appendix B to the CO Code Assignment Guidelines, requests data on telephone numbers available for assignment, growth history for the past six months, and projected demand for the coming 12 months. *See* CO Code Assignment Guidelines at Appendix B n.1.

[164] Jeopardy is defined as a situation where the forecasted and/or actual demand for NXX resources will exceed the known supply during the planning/implementation interval for relief. *See* CO Code Assignment Guidelines at § 9.3, 13.0. In jeopardy NPAs, the MTE Worksheet requests data on telephone numbers available for assignment, growth history for the past six months, and projected demand for the coming six months. CO Code Assignment Guidelines at § 9.4.4.1.

[165] SBC comments at 42.

[166] For example, numbers have been assigned to carriers considerably before the carrier is prepared to serve customers.

[167] For example, carriers have activated growth codes while a substantial number of unused resources exist within existing NXX codes.

[168] Maine Commission comments at 5-14.

[169] Pennsylvania Commission comments at 8.

code by three years.[170] Other commenters overwhelmingly support some form of "needs-based" requirement for assigning numbering resources.[171]

90. The current CO Code Assignment Guidelines do not require applicants to demonstrate their readiness to use initial codes, or demonstrate a need in order to obtain growth codes. Although some might suggest that the MTE Worksheet is needs-based, historically it has been primarily based on the carrier's untested marketing projections. Also, carriers are not held accountable for these forecasts, *i.e.*, there is no penalty for inaccurate or unjustified forecasting. The absence of verifiable proof that a carrier needs numbering resources and is prepared to use them to serve customers may encourage some carriers to obtain numbers that they are unable to use in the near term. This behavior is especially likely in NPAs that are approaching jeopardy, as carriers may be concerned that if they do not obtain an excess supply of numbers, they may not be able to maintain an adequate inventory once jeopardy has been declared.

91. We adopt national verification standards to improve the efficiency with which numbering resources are being allocated and used. Specifically, we adopt a more verifiable needs-based approach for both initial and growth numbering resources that is predicated on proof that carriers need numbering resources when, where, and in the quantity requested. We reject the contentions that assigning numbering resources on the basis of readiness to provide service or need will disproportionately affect new entrants.[172] On the contrary, the needs-based criteria that we adopt for initial and growth numbering resources establish standards by which all carriers, including new market entrants, can obtain the numbering resources that they need.

92. Some commenters suggest that the CO Code Assignment Guidelines adequately address needs-based numbering assignment concerns because they allow for the return of unused numbering resources.[173] Reclamation procedures alone are inadequate for several reasons. First, they are an "after the fact" solution. We seek to ensure that numbering resources are allocated efficiently in the first instance. Second, the current reclamation process, as discussed in more detail below, has not been consistently enforced. Although we strengthen the reclamation process in this *Report and Order*, it will take some time before unused numbering resources can be identified and reclaimed. We also clarify that once carriers meet the requirements set forth herein for initial and growth numbering resources, the NANPA shall continue to assign numbering resources on a first-come, first served basis, to those carriers that satisfy the necessary requirements. Also, the NANPA should continue to scrutinize applications and appropriately

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[170] Pennsylvania Commission comments at 9.

[171] Ameritech comments at 14; New York Commission comments at 4-5; AT&T comments at 14; Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM at 3-5; Maine Commission comments at 5; Bell Atlantic comments at 7; GTE comments at 18; Pennsylvania Commission comments at 5-9; Sprint comments at 9.

[172] Connect comments at 3.

[173] RCN comments at 2; Nextlink comments at 16; ChoiceOne comments at 4.

address those requests that raise concerns. Currently, the NANPA routinely notifies applicants when a request significantly exceeds historical growth.[174]

1. Initial Numbering Resources

a. Background

93. We sought comment on whether applicants should be required to submit evidence with their applications for initial numbering resources that they are licensed or certified to provide service in the area in which they are seeking numbering resources.[175] Alternatively, we sought comment on whether we should place an obligation on the NANPA to check the status of an applicant's license or certification with the relevant state commission prior to issuing the requested initial numbering resources.[176] We further sought comment on whether applicants should be required to make a particular showing regarding the equipment they intend to use to provide service, the state of readiness of their networks or switches, or their progress with their business plan, prior to obtaining initial numbering resources, or whether any other type of showing should be required.[177]

b. Discussion

94. The record in this proceeding indicates that some carriers have obtained initial numbering resources for use in areas in which they are not licensed or certified.[178] Sprint also reports that the CO Code Assignment Guidelines' liberal standard for obtaining initial numbering resources allowed two carriers in eastern Massachusetts to obtain over 200 NXX codes that they never used.[179] The Maine commission reports that it discovered instances in which carriers had not received state certification to provide service in areas where they were requesting and receiving numbering resources. Consequently, the Maine commission, in cooperation with the NANPA, is now being notified when a carrier requests numbering resources, and the state commission advises the NANPA when the carrier has not yet been certified.[180] We recognize that

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174 NANC NANPA's CO Code Audit Obligations, Progress Report, Audits IMG, August 24, 1999, at Attachment 1.

175 *Notice*, 14 FCC Rcd at 10348.

176 *Id.*

177 *Id.*

178 Maine Commission comments at 5; Pennsylvania Commission comments at 6. The CO Code Assignment Guidelines require that carriers must be certified before they may obtain any NXX codes. CO Code Assignment Guidelines at § 4.1.4. Wireline carriers seeking to provide service in a state must obtain a certificate from the state authorizing them to do so. Fixed wireless carriers may also be subject to state certification requirements, but states are specifically preempted from regulating entry of CMRS providers. *See* 47 U.S.C. § 332(c)(3)(A). However, all wireless carriers seeking to use spectrum to provide service in particular geographic areas must be licensed in those areas, under Title III of the Communications Act, by the Commission.

179 Sprint comments at 10.

180 Maine Commission comments at 5-6.

all state commissions may not have the resources to review all requests for numbering resources and then notify the NANPA when a carrier is not certified to provide service in their respective states.[181] We nonetheless encourage the type of initiative shown by the Maine commission and urge state commissions to continue to work cooperatively with the NANPA to help ensure that numbering resources are not prematurely assigned.

95. Most commenters agree with our tentative conclusion that applications for initial numbering resources should include proof that the applicant is licensed or certified to operate in the area in which it is seeking numbering resources.[182] A few commenters, however, suggest that additional requirements, such as proof of interconnection agreements and physical facilities, are overly burdensome and intrusive.[183] AT&T recommends that carriers be required to retain such documentation and make it available upon request.[184] Many commenters agree with our tentative conclusion that carriers must demonstrate that they are (or will be) ready to place the numbering resources in service by the activation date indicated in their application.[185] Sprint recommends imposing conditions on initial numbering resources, including documentation of planned services, certification, interconnection, and actual use of numbering resources.[186] PCIA suggests that carriers should be required to certify, pursuant to 47 C.F.R. § 1.16, that they will be ready to use the numbering resources within six months.[187]

96. We conclude that allowing carriers to build inventories before they are prepared to offer service results in highly inefficient distribution of numbering resources and is counterproductive to our goal of optimizing the use of numbering resources. Thus, a carrier shall not receive numbering resources if it does not have the appropriate facilities in place, or is unable to demonstrate that it will have them in place, to provide service. To achieve our goal of maximizing the use of numbering resources, we require applications for initial numbering resources to include documented proof that (1) the applicant is authorized to provide service in the area for which the numbering resources are requested and (2) the applicant is or will be capable of providing service within 60 days of the numbering resources activation date.[188]

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[181] Texas Commission comments at 7.

[182] MediaOne comments at 8; CinBell comments at 6; Ameritech comments at 18; North Carolina Commission comments at 5; GTE comments at 18; AT&T comments at 14; Pennsylvania Commission comments at 7.

[183] ALTS comments at 7, 8; Nextel reply comments at 10-12.

[184] AT&T comments at 14.

[185] SBC comments at 42; Sprint comments at 11-13; Pennsylvania Commission comments at 8; AT&T reply comments at 15-18; Small Business Alliance comments at 5.

[186] Sprint comments at 11-13; Bell Atlantic comments at 7-8.

[187] PCIA comments at 29. Section 1.16 authorizes unsworn declarations, in lieu of an affidavit, provided the declarant indicates that the declaration is true under the penalty of perjury.

[188] *See* Sprint comments at 10-12; SBC comments at 44; Texas Commission comments at 7.

97. Specifically, carriers must provide, as part of their applications for initial numbering resources, evidence (*e.g.*, state commission order or state certificate to operate as a carrier) demonstrating that they are licensed and/or certified to provide service in the area in which they seek numbering resource. Carriers requesting initial numbering resources must also provide the NANPA appropriate evidence (*e.g.*, contracts for unbundled network elements, network information showing that equipment has been purchased and is operational or will be operational, business plans, or interconnection agreements) that its facilities are in place or will be in place to provide service within 60 days of the numbering resources activation date. The burden is on the carrier to demonstrate that it is both authorized and prepared to provide service before receiving initial numbering resources.[189] These requirements apply equally to carriers requesting an initial NXX code and those requesting an initial thousands-block pursuant to the pooling requirements we establish in this *Report and Order*.

98. We direct the NANPA to withhold initial numbering resources from any carrier that does not comply with these requirements, and to notify the carrier of its decision to withhold numbering resources in writing within ten days of receiving the request. Carriers disputing the NANPA's decision to withhold initial numbering resources upon a finding of noncompliance may appeal the NANPA's decision to the appropriate state commission for resolution. We hereby delegate authority to state commissions to affirm or overturn the NANPA's decision to withhold initial numbering resources based on compliance with the above requirements.

99. We do not intend to circumscribe any carrier's ability to obtain initial numbering resources in order to initiate service. This requirement of additional information from applicants for initial numbering resources is to prevent actual or potential abuses of the number allocation process. In fact, we expect the establishment of these requirements to make more numbering resources available to carriers lawfully authorized by state commissions to provide local service by preventing unauthorized carriers from unlawfully depleting numbering resources.

100. We also clarify that our intent is to allow qualified carriers to seek one initial code or thousands-block for the purpose of establishing a footprint or presence in a particular rate center. If an initial request for numbering resources seeks more than one code or thousands-block, the additional codes or thousands-blocks will be treated as growth codes and must meet the requirements outlined in that section below.

2. Growth Numbering Resources

a. Criteria

101. With respect to carriers' ability to obtain growth numbering resources, we tentatively concluded in the *Notice* that applicants should be required to provide data that support their need to obtain additional numbering resources, as a means of preventing the building up (or "stockpiling") of numbers and carrying of excessive inventories.[190] We further tentatively

[189] *See* Bell Atlantic comments at 8. *See also* State of Maine Public Utilities Commission, Investigation into Area Code Relief, Docket No. 98-634, *Procedural Order*, January 5, 2000; SBC comments at 44.

[190] *Notice*, 14 FCC Rcd at 10348.

concluded that the NANPA may not allocate additional numbering resources to an applicant unless the applicant has made a satisfactory demonstration of need.[191] Applicants currently complete a MTE Worksheet prior to applying for growth numbering resources and provide the worksheet to the NANPA.[192] We sought comment on whether this process is an adequate demonstration of need for additional numbering resources.[193] We further sought comment on whether NANPA should be required to evaluate the MTE projection prior to allocating the requested numbering resources.[194] Alternatively, we sought comment on whether applicants should be precluded from requesting growth numbering resources from the NANPA until they have achieved a specified level of numbering utilization (or "fill rate") in the area in question.[195]

102. The MTE Worksheet requires carriers to identify "available" numbering resources by rate center, historical monthly utilization for the preceding six months, and projected monthly utilization for the next twelve months. Although some carriers oppose the imposition of specific utilization thresholds, they generally agree that applications for additional numbering resources should include both historical utilization as well as forecasted growth.[196] Ameritech recommends that applicants for additional numbering resources provide current utilization rates and/or inventory data.[197] MediaOne suggests that a shorter MTE period (e.g., 90 days) should be required in emergency situations as the basis for assigning growth numbering resources.[198]

103. The current MTE Worksheet provides limited information by which to evaluate a carrier's "need" for numbers.[199] To ensure that carriers obtain numbering resources when and where they are needed to provide service, we require carriers to provide evidence that, given their current utilization and recent historical growth, they need additional numbering resources.[200] We also require the NANPA to verify carriers' need. As discussed in more detail below, we adopt a minimum utilization threshold that non-pooling carriers must satisfy before obtaining additional numbering resources. Additionally, we seek comment in a *Further Notice* on the precise level of the utilization threshold. We exempt pooling carriers from this additional utilization threshold requirement in recognition of their requirement to donate to the pool uncontaminated and lightly

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191 *Id.* at 10348-49.

192 *See supra* ¶ 87.

193 *Notice*, 14 FCC Rcd at 10349.

194 *Id.*

195 *Id.*

196 Bell Atlantic comments at 8; Ameritech comments at 16; AirTouch comments at 19-20; GTE comments at 18.

197 Ameritech comments at 16.

198 MediaOne comments at 13.

199 Maine Commission comments at 5.

200 MCI WorldCom comments at 26.

contaminated thousands-blocks that are not needed to maintain short-term inventory levels.[201] We may, however, revisit the question of whether all carriers should be subject to meeting a utilization threshold to obtain growth numbering resources if we find that such thresholds significantly increase numbering use efficiency.

104. We find that using the MTE Worksheet as the sole criterion for evaluating need is inadequate, because much of the data cannot be verified until after the carrier has already obtained the requested NXX code.[202] Second, the MTE forecast is largely subjective and dependent on good faith projections by each carrier. Further, there is no retrospective accountability to which carriers are held regarding forecasts. To increase the reliability of the MTE projections, we require all non-pooling carriers seeking growth numbering resources to report their utilization level, calculated using the formula below, for the rate center in which they are seeking growth numbering resources with all applications for additional numbering resources.[203] MTE projections must also be filed by rate center. These requirements will provide more reliable, verifiable information to help the NANPA improve efficient distribution of numbering resources and develop more accurate forecasts of both the NANP and individual NPA exhaust.[204]

105. We require rate center-based utilization to be reported because it more accurately reflects how numbering resources are assigned. NPAs can cover large service areas with widely differing characteristics (*e.g.*, urban, rural).[205] Further, rate center-based utilization data may give state commissions additional information on which to evaluate rate center consolidation.[206] Moreover, rate center-based utilization allows carriers to obtain numbering resources in response to specific customer demands. For example, some NPAs contain both suburban/rural and urban areas. In such "mixed" NPAs, carriers might have high utilization rates in rate centers located in densely populated areas of the NPA, and lower utilization rates in the more rural or suburban rate centers in the NPA. As a consequence, a carrier may be unable to meet an NPA-wide utilization rate, even when it is running into numbering shortages in particular rate centers in more densely-populated areas.

106. We decline to require different utilization criteria for different market segments,

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[201] *See infra* ¶ 191.

[202] Liberty Telecom comments at 4; Ohio Commission comments at 17; Florida Commission comments at 7; Pennsylvania Commission comments at 10.

[203] New York Commission comments at 6. AT&T agrees that if a utilization threshold is adopted that it should be based on rate centers and not NPAs. *See* AT&T comments at 16.

[204] Sprint reports that in Long Island, NY, the industry agreed to a process whereby growth code applications must include six months historical utilization and six months forecast data. If the forecasted monthly demand is within 15% average historical monthly utilization, a central office code will be assigned automatically. If, however, the forecasted demand exceeds 15% historical utilization, the applicant must explain the deviation before a growth code is assigned. Sprint comments at 12.

[205] CTIA comments at 9.

[206] CTIA comments at 9 n.14.

i.e., types of service providers. We do so in order to maintain competitive neutrality in the number assignment process. As competition continues to develop, we are likely to see more market segments converge, making it difficult to distinguish particular market segments. The suggestions that utilization requirements be distinguished by geography are accounted for in our requirement that carriers provide utilization data based on rate centers. The requirements we adopt here do not preclude state commissions from concurrently monitoring utilization using semi-annually reported data.

b. Calculating Utilization Levels

107. We sought comment on how utilization levels should be calculated.[207] We proposed that a carrier's utilization level in a given geographic area (NPA or rate center) be calculated by dividing the quantity of "telephone numbers unavailable for assignment"[208] (the numerator) by the total quantity of telephone numbers in all NXXs assigned to the carrier within the appropriate geographic area (the denominator), and multiplying the result by 100.[209] We expressed concern, however, that certain number status categories, including reserved numbers, numbers allocated to resellers, and numbers in dealer numbering pools, may be used by carriers to stockpile numbers.[210] That is, carriers may assign NXX codes or portions thereof to these categories, and then count these NXX codes or numbers as being utilized, even when they are not being used to provide any type of service. We noted that the incentive to assign numbers to these categories for such strategic purposes may increase if we move to a number allocation regime based on utilization thresholds.[211] Accordingly, we sought comment on whether these categories of numbers should be excluded from the "numerator," or whether there are other ways to prevent the types of abuses about which we expressed concern.[212]

108. We recognized that in most cases, newly acquired and activated NXX codes would have lower utilization levels than older, more "mature" NXXs.[213] Accordingly, we sought comment on whether applicants should have the option of excluding from their utilization level calculation all NXXs obtained in the period immediately preceding the carrier's request for additional numbering resources (*i.e.*, all "newly acquired" NXXs).[214] We also sought comment on

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[207] *Notice*, 14 FCC Rcd at 10350.

[208] *Id.*

[209] *Id.* The denominator must include all NXX codes assigned, regardless of whether the NXX codes have been activated in the Local Exchange Routing Guide (LERG).

[210] *Id.*

[211] *Id.*

[212] *Id.*

[213] *Id.*

[214] *Id.* at 10351. CTIA proposes that utilization thresholds be calculated by looking at data from "mature" NXX codes, which it defines as NXX codes that have been assigned to, and are available for use by, a carrier for at least 90 days. *See* CTIA Jan. 28, 1999 Numbering Proposal. *See also* Cellular Telecommunications Industry (continued….)

whether "newly acquired" NXXs should be defined as those assigned to the applicant by the NANPA during the 90 days prior to the new application, or whether 120 days is a more appropriate period for exclusion.[215] We proposed that carriers wishing to take advantage of such exclusion must exclude the newly acquired NXXs from both the numerator and the denominator of their utilization level calculation.[216] Thus, to the extent that a carrier had begun to assign numbers from a newly acquired NXX, the numbers assigned may not be included in the numerator, if the entire NXX were not included in the denominator of the equation. We further sought comment on whether the exclusion of newly acquired NXXs from the utilization level calculation will accommodate wireless carriers' seasonal fluctuations in demand.[217]

109. We note that we have eliminated the category *telephone numbers unavailable for assignment* which we had proposed to adopt in the *Notice*, because we conclude that its use would result in the double counting of certain numbers.[218] Our definition of *assigned numbers* reflects those numbers that are in use, or will be in use in the short-term, in the PSTN for a specific customer.[219] This category of number use provides a more accurate representation of numbers used to serve customers, which ultimately furthers our number optimization goals. Other number use categories may become unreasonably inflated and we therefore exclude them from the utilization level calculation. Thus, the utilization level in a given geographic area (NPA or rate center) should be calculated by dividing all *assigned numbers* (numerator) by total numbering resources assigned to that carrier in the appropriate geographic region (denominator), and multiplying the result by 100.

110. We believe that the establishment of a uniform utilization level calculation will allow us, the NANPA, and state commissions to more accurately review and analyze utilization data. Additionally, it will minimize the likelihood that a carrier will retain unneeded numbering resources.[220]

111. We define “newly acquired numbers” as those that have been activated within the LERG, and thus are available for assignment, within the preceding 90 days of reporting utilization. Because we are aware that carriers cannot be reasonably expected to achieve significant utilization levels immediately in newly acquired numbering resources, we conclude that newly acquired numbering resources can be excluded from the calculation. Further, excluding

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Association's Petition for Forbearance from Commercial Mobile Radio Services Number Portability Obligations and Telephone Number Portability, *Memorandum Opinion and Order*, 14 FCC Rcd 3092, 3115-16 (1999) (*CMRS LNP Forbearance Order).*

215 *Notice*, 14 FCC Rcd at 10351. *See also CMRS LNP Forbearance Order*, 14 FCC Rcd at 3115-16.

216 *Notice*, 14 FCC Rcd at 10351.

217 *Id.*

218 *See supra* ¶ 14.

219 *See supra* ¶¶ 16–17.

220 *See, e.g.*, Nextel comments at 12.

newly acquired numbering resources allows carriers to maintain adequate inventories in preparation for specific promotional offerings and accommodates wireless carriers' seasonal fluctuations in demand.[221]

c. Utilization Threshold

112. We sought comment generally on whether a percentage utilization threshold should be adopted for carriers requesting additional numbering resources, and if so, on the appropriate level for that threshold.[222] We further sought comment on whether we should set a uniform nationwide utilization threshold or, in the alternative, establish a range within which state commissions may set the utilization threshold.[223] In addition, we sought comment on whether utilization thresholds, if adopted, should be increased gradually over time, in order to provide carriers time to adjust to the new requirements, and to improve their utilization performance over time.[224] We further sought comment on whether the utilization threshold should apply nationwide, or only in areas that are experiencing difficulties with number exhaust, *e.g.*, the largest 100 MSAs and in area codes where a jeopardy condition has been declared.[225] Alternatively, we sought comment on whether the smaller MSAs should have a lower utilization threshold than the largest 100 MSAs.[226]

113. ALTS recommends that industry utilization rates be monitored over time before determining whether utilization requirements are necessary.[227] It suggests that if the Commission subsequently determines that utilization thresholds are necessary that they apply only to growth numbering resources and be calculated based on all of a carrier's numbering resources in the rate center. Bell Atlantic recommends establishing utilization thresholds as a substitute for requiring wireless carriers to participate in pooling.[228]

114. Regarding the level at which a utilization threshold should be set if adopted, CTIA recommends that a 60% utilization threshold be adopted in jeopardy NPAs, increased annually by 5% to a maximum of 70%.[229] It suggests that the same utilization threshold should apply to all

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221 AT&T comments at 18.

222 *Notice*, 14 FCC Rcd at 10349.

223 *Id.* at 10350.

224 *Id.*

225 *Id.*

226 *Id.*

227 ALTS comments at 12.

228 Bell Atlantic comments at 8.

229 CTIA comments at 10.

carriers.[230] Nextel agrees and further suggests that there should be a higher fill rate for major markets and jeopardy areas than for non-jeopardy areas.[231] Time Warner supports establishing a minimum utilization threshold but suggests that the NANC set the initial rate, which could then be adjusted upward as increased efficiencies are obtained.[232] Some commenters suggest that the level of carriers' need for numbering resources may vary widely from one state to another and by rate centers; and, consequently suggest that we adopt an acceptable range and allow state commissions to set target utilization thresholds within that range.[233]

115. We are convinced that requiring carriers not participating in pooling to meet a utilization threshold before they receive a growth code is an equitable way to make sure that carrier requests are needs-based. We therefore adopt a nationwide utilization threshold for non-pooling carriers beginning January 1, 2001. We are less certain, however, at what level the threshold should be set. Parties that commented on a specific utilization rate all suggested thresholds within 60-90% range.[234] We believe, however, that most of the suggested utilization thresholds included in the numerator were based on additional categories besides *assigned numbers*. Additionally, state commissions are in the process of conducting or completing utilization studies for specific NPAs and we hope to examine the results of those studies and learn what actual utilization levels carriers are now achieving. In the attached *Further Notice*, we seek additional comment on what specific utilization threshold should be required.

IV. NUMBER CONSERVATION THROUGH THOUSANDS-BLOCK NUMBER POOLING

A. Requirements for LNP-Capable Carriers: Mandatory Thousands-Block Number Pooling

1. Telephone Number Pooling

a. Background

116. In the *Notice*, we identified as one of the major drivers of exhaust the distribution of numbers in blocks of 10,000.[235] Telephone number pooling addresses this problem by allowing service providers in a given area to receive numbers in blocks smaller than 10,000.[236] Carriers

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230 CTIA comments at 11.

231 Nextel comments at 10-11.

232 Time Warner comments at 16-17.

233 New York Commission at 7.

234 CTIA comments at 10; Virginia Commission comments at 4.

235 *Notice*, 14 FCC Rcd at 10381.

236 Historically, network routing mechanisms are based upon the understanding that geographic numbers are assigned on an NXX code basis and associated with a specific switch, and, correspondingly, that the network address to which the call is routed is embedded in the first six digits (NPA-NXX) of the called number. Number (continued….)

participating in pooling thereby are able effectively to share numbering resources from a single NXX code. As part of our inquiry, we considered (1) thousands-block number pooling; (2) individual telephone number (ITN) pooling; (3) and unassigned number porting (UNP) as possible number pooling strategies for implementation on a nationwide basis.[237]

117. All three pooling strategies utilize the LRN architecture that supports LNP.[238] The LRN database structure is used to route calls to customers who have been assigned telephone numbers from a pool because, as with a ported number, the NPA-NXX of a pooled number no longer necessarily identifies the switch or service provider associated with the service. Thus, number pooling can be implemented only where LRN LNP has been deployed. Also, because of the current wireline call rating mechanisms associating an NXX with a rate center, the proposed pooling methodologies would be based on the rate center structure in place in a given NPA.[239] Therefore, each rate center would contain a separate pool of numbering resources.[240]

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pooling breaks the association between the NPA-NXX and the service provider to whom the call is routed by the Location Routing Infrastructure.

[237] *Notice*, 14 FCC Rcd at 10381-91. Thousands-block number pooling enables carriers to receive numbering resources in blocks of 1,000. ITN enables carriers to receive telephone numbers one at a time. UNP, although not technically a pooling method because carriers receive numbering resources from each other, rather than from a common pool overseen by a pooling administrator, is similar to ITN in that individual numbers are ported using the same network infrastructure (LNP) to route calls.

[238] The LRN is a unique ten-digit number assigned to each central office switch to identify each switch in the network for call routing purposes. *See* ATIS T1S1.6 Working Group Technical Requirements No.4 for Thousands-Block Pooling Using Number Portability (T1S1.6 Thousands-Block Number Pooling Technical Requirements). The T1S1.6 Working Group was created to develop standards and requirements for number portability with the support of ATIS. *See* Accredited Standards Committee-T1 Telecommunications Procedures Manual at 21. Committeee-T1 documents are available at <http://www.atis.org>.

When an individual telephone number is ported, a record associating the ported number with the LRN of the appropriate service provider's switch is created and stored in the former carrier's LNP service control point (SCP) database, via downloads from the local Service Management System (SMS). Local SMSs (LSMSs) are the databases that carriers will regularly access to obtain information on ported telephone numbers. The Number Portability Administration Center (NPAC) SMSs are the regional databases maintained by the local number portability administrators, which contain the lists of ported telephone numbers and associated LRNs. These lists of ported numbers and LRNs are periodically transmitted from the NPAC SMSs to the LSMSs, and then downloaded to network SCPs for call processing. Telephone Number Portability, *Second Report and Order*, CC Docket No. 95-116, 12 FCC Rcd 12281, 12288 (1997) (*Telephone Number Portability Second Report and Order*). Any service provider routing a call to the ported number would do so by querying the database to determine the LRN that corresponds to the dialed telephone number, and routing the call to the switch identified by that LRN. *See generally Id.* at 12287. *See also Notice*, 14 FCC Rcd at 10381-83. The LRN method was initially recommended by the industry and state/regional workshops, and adopted by the Commission in *Telephone Number Portability Second Report and Order*, 12 FCC Rcd at 12283.

[239] Pooling, however, could be extended beyond the rate center if methods to eliminate the link between call rating and NXX codes using the SS7 network were implemented.

[240] The concept of pooling within the rate center was introduced by the INC at the June 10, 1997 NANC meeting. The NANC supported this paradigm. *See also* NANC Number Resource Optimization Report, October 21, 1998.

2. Thousands-Block Number Pooling

a. Background

118. Thousands-block number pooling involves breaking up the 10,000 numbers in an NXX into ten sequential blocks of 1,000 numbers each, and allocating each thousands-block to a different service provider, and possibly a different switch, within the same rate center. All 10,000 numbers available in the NXX code are allocated within one rate center, but can be allocated to multiple service providers in thousand number blocks, instead of only to one particular service provider.[241] A Pooling Administrator, an independent third-party entity, coordinates the allocation of numbers to a particular service provider with the Number Portability Administration Center (NPAC) SMSs.[242] In the *Notice*, we tentatively concluded that, given the potential benefits of nationwide pooling in making more efficient use of NXX codes, implementing thousands-block number pooling in major markets is an important numbering resource optimization strategy that is essential to extending the life of the NANP.[243] We sought comment on how thousands-block number pooling should be implemented.[244] We also sought comment on how best to achieve our goal of facilitating carrier participation in areas where the benefits of pooling outweigh the associated costs.[245]

119. In the *Notice*, we also considered whether there were incentive-based mechanisms that could be used to address the numbering crisis without a regulatory mandate.[246] In particular, we discussed the possibility of adopting a "carrier choice" alternative based on a carrier's achieving a mandatory utilization threshold as a substitute for mandatory participation in technical optimization solutions such as thousands-block pooling.[247] This strategy contemplates establishing thresholds for efficient use of numbering resources and leaving the choice of method for achieving those thresholds to individual carriers.

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[241] For example, if the 202-418 NPA/NXX were pooled, up to ten service providers could serve customers from it. One service provider could be allocated every line number from 202-418-0000 through 202-418-0999. Another service provider could be allocated every line number in the range 202-418-1000 through 202-418-1999.

[242] The NPAC SMSs are regional databases that contain all necessary routing information on ported telephone numbers and facilitate the updating of the routing databases of all subtending service providers in the portability area. As noted above, to facilitate proper network routing in a thousands-block number pooling environment, every service provider's existing LNP SCP database within the pooling area would store specific LRN routing information for thousand number blocks within the same NXX. In addition, each service provider's LNP mechanism would query its database for calls to pooled numbers allocated to other service providers.

[243] *Notice*, 14 FCC Rcd at 10384.

[244] *Id.*

[245] *Id.*

[246] *Id.* at 10413.

[247] *Id.* at 10413-14.

120. Subsequent to the release of the *Notice*, the Commission delegated interim authority to implement thousands-block number pooling to particular state commissions that had requested such authority because we recognized that thousands-block number pooling may extend the lives of certain jeopardy NPAs in those states.[248] By granting such authority to these state commissions, however, we did not intend to permit state commissions to engage in thousands-block number pooling to the exclusion of, or as a substitute for, unavoidable and timely area code relief.[249] We also recognized the potential for confusion and unnecessary burdens on carriers from the impact of disparate standards in the implementation of thousands-block number pooling and, thus, our grants of such authority were subject to the caveat that these interim delegations would be superseded by a nationwide number conservation strategy.

b. Discussion

121. We agree with commenting parties that a carrier choice approach would reduce the potential effectiveness of certain optimization strategies, particularly thousands-block number pooling, because fewer carriers would participate.[250] Thus, carriers with high utilization rates would continue to draw additional numbering resources in blocks of 10,000, which would likely perpetuate the phenomenon of stranded, unassignable numbers in the NXX blocks controlled by these non-pooling carriers.[251] We also agree with Bell Atlantic that numbering optimization measures, such as thousands-block pooling, provide the greatest benefits when participation is maximized, and allowing carriers to opt out would significantly limit their benefit.[252] We also note that a carrier choice approach would be very difficult to administer, difficult to enforce, and would unnecessarily complicate cost recovery mechanisms.[253] For instance, requiring some carriers to pool, while excluding others, would require the former to pay more for the use of

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[248] *See California Delegation Order,* 14 FCC Rcd at 17490-96; *Connecticut Delegation Order* at ¶¶ 12-24; *Florida Delegation Order,* 14 FCC Rcd at 17510-16; *Maine Delegation Order,* 14 FCC Rcd at 16451-57; *Massachusetts Delegation Order,* 14 FCC Rcd at 17451-57; *New Hampshire Delegation Order* at ¶¶ 24-34; *New York Delegation Order,* 14 FCC Rcd at 17470-76; *Ohio Delegation Order* at ¶¶ 27-39; *Texas Delegation Order* at ¶¶ 11-23; *Wisconsin Delegation Order* at ¶¶ 32-44.

[249] *See Pennsylvania Numbering* Order, 13 FCC Rcd at 19027. The Commission stated that these grants of interim authority are limited delegations of authority that do not abrogate the state commissions' obligations to follow the area code implementation guidelines established in the *Local Competition Second Report and Order*.

[250] *See* ALTS comments at 26; GTE comments at 67 (stating that the carrier choice approach would create great difficulties for enforcement and audits); New York Commission comments at 19-20 (stating that inconsistent application of number optimization measures would exacerbate numbering shortage); USTA comments at 12 (stating that allowing carriers to choose among many number optimization measures will likely reduce the effectiveness of the measures because fewer carriers would be required to implement the number optimization methods).

[251] Several states strongly disagree with the carrier choice approach, asserting it will be impossible for carriers to reach high utilization rates without mandatory thousands-block number pooling. *See* Letter from Trina M. Bragdon to Magalie Roman Salas, FCC dated January 31, 2000.

[252] *See* MCI WorldCom comments at 31.

[253] *See* Maine Commission comments at 25-27.

numbering resources than the latter.[254] Furthermore, we believe that the industry and consumers are best served by national number resource optimization standards implemented consistently and in a competitively neutral manner across the nation. We decline, therefore, to adopt the carrier choice approach discussed in the *Notice* and advocated by some parties.[255] We have, however, sought to incorporate, to the extent possible, the incentive-based rationale within the carrier choice proposal.

122. Pursuant to our authority under section 251(e) of the 1996 Act,[256] we adopt thousands-block number pooling as a mandatory nationwide numbering resource optimization strategy. Although we set forth the national pooling framework in this *Report and Order*, we will roll out thousands-block number pooling at the national level after we select a national pooling administrator.[257] Consistent with our tentative conclusion in the *Notice*, we find that the implementation of thousands-block number pooling in major markets is essential to extending the life of the NANP by making the use of NXX codes more efficient.[258] We note that a wide array of commenting parties also agree with our tentative conclusion and support the adoption of a national thousands-block number pooling plan.[259] As we stated earlier, the allocation of numbering resources in blocks of 10,000, without regard to the quantity of numbers a carrier needs in a given rate center at a given moment, is a significant driver of premature number exhaust.[260] Because many new entrants in a market do not have the customer base to be able to utilize 10,000 numbers in an NXX, the unused numbers become stranded. We therefore concur with Qwest that thousands-block number pooling will reduce the incidence of stranded numbers by allowing carriers to submit numbering requests that more closely approximate their immediate numbering needs.[261] Thus, thousands-block number pooling is a valuable mechanism to remedy the inefficient allocation and use of our numbering resources.[262]

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254 *See* AT&T comments at 58-60.

255 GTE comments at 43; Liberty comments at 70; SBC comments at 70.

256 47 U.S.C. § 251(e).

257 *See infra* discussion at ¶¶ 156-66.

258 *Notice*, 14 FCC Rcd at 10384.

259 *See, e.g.* ALTS comments at 23; Ameritech comments at 40; AT&T comments at 39; Bell Atlantic comments at 23; Cablevision Lightpath (Cablevision) comments at 5; California Commission comments at 26; Connecticut Commission comments at 6; Maine Commission comments at 19; MediaOne comments at 21; Nextel comments at 17; Nextlink comments at 9-10; New York Commission comments at 10; Sprint comments at 16; USTA reply comments at 18.

260 Cablevision comments at 5; Qwest comments at 3.

261 Qwest comments at 3; Nextel comments at 17; Time Warner comments at 6.

262 ALTS comments at 23; Cablevision comments at 6; California Commission comments at 27; Connecticut Commission comments at 6; Cox comments at 15; Maine Commission comments at 21; Nextlink comments at 9; New Hampshire Commission comments at 16; Sprint comments at 16.

123. Furthermore, unlike WinStar,[263] we are persuaded from our observation of the ongoing mandatory state-sponsored pooling trial in the 847 NPA in Illinois that thousands-block number pooling can extend the life of an NPA in a manner in which the benefits exceed the carrier-specific costs which carriers must incur to enable them to receive pooled numbers**.** In particular, we observe that, after thousands-block pooling was implemented in June 1999, the projected life of the 847 NPA was extended by two years.[264] We believe that the benefits to carriers, businesses and consumers of the cost savings resulting from the ability to meet numbering needs without the implementation of area code relief for at least two years justified the cost of implementing pooling in the 847 NPA. As we stated earlier, though difficult to quantify in an exact manner, the tangible and intangible costs of frequent area codes changes to businesses and consumers are significant.[265] We nevertheless re-emphasize that the adoption of a national thousands-block number pooling framework is not a substitute for timely area code relief once additional numbering resources are needed, though we believe it can substantially extend the time before such relief is necessary.[266]

124. We disagree with parties who maintain that it is inappropriate and unjustifiable for the Commission to mandate nationwide thousands-block number pooling at this time.[267] The widespread incidence of area code exhaust has placed a tremendous burden on consumers and has caused the NANP to come perilously close to exhaust; eventually, exhaust will necessitate expansion of the NANP at significant cost. Our efforts here seek to ensure fair and impartial access by all telecommunications carriers to numbering resources, given the impact of the rapid depletion of these numbering resources.[268] We are confident that our actions in this proceeding will temper the need for future area code relief by facilitating more efficient use of our numbering resources. In addition, because competition in telecommunications markets is dependent, in part, upon fair and impartial access by all telecommunications carriers to national numbering resources, we view our efforts with regard to numbering resource optimization as an integral part of the Commission's overall efforts to implement the pro-competitive goals of the 1996 Act. We also believe that, as part of our plenary jurisdiction over numbering issues, we are obligated to alleviate the burdens placed on consumers by the inefficient use of numbering resources.[269]

125. We also find it necessary to make participation in a national thousands-block

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[263] WinStar comments at 20 (maintaining that the data from the Illinois and New York trials suggest a less than compelling case for pooling).

[264] *See* Ganek, *Leveraging LNP*, Telephony, February 7, 2000.

[265] *See Where Have All the Numbers Gone? Long-Term Area Code Relief Policies and the Need For Short-Term Reform*, Economics and Technology, Inc., March 1998, at 19-24 (*Where Have All the Numbers Gone?*).

[266] *See* Cox comments at 15; SBC comments at 83.

[267] Burrows comments at 6; CinBell comments at 10; Level 3 comments at 13; Omnipoint comments at 22; VoiceStream comments at 25.

[268] Connecticut Commission comments at 6; MediaOne comments at 21.

[269] ALTS comments at 3; Bell Atlantic comments at 25; Qwest comments at 5.

number pooling framework mandatory for all carriers that are currently required to be LNP-capable, either because they provide service in one of the largest 100 MSAs, or pursuant to a request from another carrier.[270] We are concerned that an optional thousands-block pooling framework based on a carrier's rate of utilization of its numbering resources, as proposed by several commenters,[271] might compromise the potential effectiveness of this numbering resource optimization strategy.[272] Thousands-block number pooling will realize the greatest savings in NXX code usage when the majority of the users of numbering resources receive their numbers in thousands-blocks, instead of blocks of 10,000.[273] Additional benefits of thousands-block number pooling will be in the form of fewer stranded numbers, greater competition from more carriers being able to receive numbers, and less incentive to hoard. Our decision to require mandatory pooling at a national level once we select a pooling administrator is supported by the experience of the voluntary thousands-block pooling trials in the 212 and 718 NPAs in New York, which have not achieved much benefit because few carriers chose to participate.[274]

126. We also reject the assertion that the adoption of a mandatory thousands-block number pooling framework is premature because substantial technical issues remain unresolved.[275] Indeed, we find that the majority of the technical issues concerning thousands-block number pooling have been resolved in industry fora, and the industry's agreement on technical standards for this strategy is reflected in the promulgation of the T1S1.6 Working Group's Technical Requirements for Thousands-Block Number Pooling Using Number Portability and the Thousand Block Pooling Guidelines. Also, NeuStar, the current local number portability administrator (LNPA), plans to activate the NPAC Release 3.0 software in July, 2000, which is expected to

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[270] *Notice*, 14 FCC Rcd at 10385. *See also* ALTS comments at 23; Nextel comments at 19; Small Business Alliance comments at 9. The Commission required wireline carriers in the largest 100 MSAs to implement LNP as of December 31, 1998, in switches that another carrier has requested be made LNP capable. 47 C.F.R. § 52.23(b)(1). As of January 1, 1999, LECs may request LNP in other LECs' individual switches in areas outside of the largest 100 MSAs, to be provided no later than six months after receiving the request. CMRS carriers are not required to deploy LNP until November 24, 2002. *See CMRS LNP Forbearance Order*, 14 FCC Rcd at 3093. We do not, in this *Report and Order*, change the circumstances under which carriers are required under our rules to acquire LNP capability.

[271] GTE comments at 43; SBC comments at 68, 70; Liberty comments at 5.

[272] *See* Bell Atlantic comments at 37; New York Commission comments at 19-20; USTA comments at 12.

[273] Connecticut Commission comments at 6.

[274] The trial in the 212 NPA began on July 1, 1998, and the 718 NPA trial began on March 1, 1999. There are 26 potential pooling participants in the 212 NPA and 24 potential participants in the 718 NPA. The NANPA informs us that, to date, in the 212 NPA, five providers donated thousands-blocks to the pool and six providers received thousands-blocks from the pool. Pooling thus far has resulted in the saving of only 8 NXXs. Although the 718 NPA trial has had four participants donate to the pool, no carrier has received thousands-blocks from that NPA and thus no NXXs have been saved. At this point, the 212 NPA is exhausted of CO codes and the 718 NPA has only 7 CO codes remaining. *See* 212/718 Voluntary Telephone Number Pooling, NeuStar, dated February 22, 2000.

[275] RCN comments at 13.

significantly extend carriers' system capacity for pooling.[276] We also note that the pooling trials that are currently underway have not experienced any significant technical difficulties.[277] We recognize, however, that in the early stages of national pooling implementation, some additional technical issues may have to be resolved either within the pooling administrator's pooling platform or carrier interfaces.[278]

127. We conclude that delaying implementation of thousands-block number pooling until all carriers are required to be LNP-capable, as suggested by some commenters,[279] would needlessly prolong the inefficiencies resulting from the current number allocation system. Because the majority of wireline carriers in the major markets currently possess LNP capability, we believe that pooling will appreciably extend the lives of some NPAs already in jeopardy as well as all new NPAs going forward. LNP capability is already mandated in the areas where number usage is likely to be the highest; *i.e.*, in the largest 100 MSAs. We also note that there are 170 NPAs in the largest 100 MSAs and these particular NPAs constitute approximately 54% of the total number of NPAs nationwide.[280] Moreover, we find that 28 percent of the NPAs in the largest 100 MSAs are in jeopardy, while about 24 percent of the area codes outside the largest 100 MSAs are in jeopardy.[281] Thus, the benefits of pooling can potentially affect a large number of areas and consumers.

128. We conclude that national thousands-block number pooling should be administered by a single national pooling administrator because we seek to ensure consistency and uniformity in pooling administration in a cost-effective manner. We find it necessary, however, to delay the implementation of thousands-block number pooling on a nationwide basis until a national pooling administrator is selected. To mitigate the impact on the NANP of this delay in our ability to commence national pooling, we will continue to permit states to implement individual pooling trials through individual requests for additional delegation of authority. We, however, decline to further delay the commencement of nationwide pooling until after states have implemented other

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[276] When a number is ported, carriers must utilize software in the NPAC system to download and store the telephone number and associated LRN. Both NPAC Release 1.4 and NPAC Release 3.0 are customized to perform pooling. The ongoing state pooling trials, for which NeuStar serves as the Pooling Administrator, are currently using the NPAC Release 1.4 software.

[277] The Illinois Commission began a mandatory thousands-block pooling trial in the 847 NPA in June 1998. *See* Illinois Number Pooling Trial Within NPA 847 Interim Report (Apr. 26, 1999) (estimating a savings of 137 NXX codes as a result of pooling). This document is available at <http://www.numberpool.com/POOL/pac.htm>. The New York Commission began voluntary thousands-block pooling trials in the 212 NPA in July 1998, and in the 718 NPA on Jan. 1, 1999. *See* New York State Department of Public Service Petition for Additional Delegated Authority to Implement Number Conservation Measures, filed Feb. 19, 1999, at 7.

[278] Ameritech comments at 40.

[279] Level 3 comments at 13; RCN comments at 13; Omnipoint comments at 6.

[280] This information was based on data from the following Internet cites: <http://www.nanpa.com>; <http://www.lincmad.com>; <http://www.census.gov>.

[281] *Id.*

conservation measures such as rate center consolidation, ten-digit dialing, audits, and reclamation of unused NXX codes, as suggested by some parties.[282] Although we continue to believe that the implementation of these other measures also will assist in further optimizing our numbering resources, we conclude that the implementation of thousands-block number pooling need not be linked to the implementation of other number conservation measures, given the urgency of the numbering crisis facing the nation and the uncertain time-frames in which these other measures may be implemented.[283]

B. Requirements for Non-LNP-Capable Carriers

a. Background

129. In the *Notice*, we sought comment on whether the need to promote efficient use of numbering resources requires non-LNP-capable carriers to participate in thousands-block number pooling, the relative costs and benefits of extending thousands-block number pooling requirements to such carriers, and whether there are viable non-LNP based alternatives to thousands-block number pooling that would promote the efficient use of numbers by non-LNP-capable carriers.[284] We divided non-LNP-capable carriers into three categories: (1) "covered" CMRS carriers[285] in the largest 100 MSAs, which are not currently LNP-capable, but will be required to implement LNP by a date certain; (2) wireline and "covered" CMRS carriers outside the largest 100 MSAs, which will be required to deploy LNP in the future only if and when they receive a request from a competing carrier;[286] and (3) non-covered CMRS providers, such as paging carriers, which are not subject to LNP requirements of any kind.[287] With respect to "covered" CMRS providers in the largest 100 MSAs, we noted our decision in the *CMRS LNP Forbearance Order* stating that covered CMRS providers would be required to implement LNP

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[282] *See* AirTouch comments at 10; Liberty comments at 3; Omnipoint comments at 6; CinBell comments at 10; PrimeCo comments at 7; Sprint comments at 21.

[283] Several commenters agree with this conclusion. *See* California Commission comments at 23; Nextlink comments at 8; Massachusetts Commission comments at 4; Wisconsin Commission comments at 8.

[284] *Notice*, 14 FCC Rcd at 10392.

[285] The term "covered CMRS" refers to broadband Personal Communications Service (PCS), cellular, and 800/900 MHz Specialized Mobile Radio (SMR) licensees that (1) hold geographic area licenses or are incumbent SMR wide area licensees, and (2) offer real-time, two-way switched voice service, are interconnected with the public switched network, and utilize an in-network switching facility that enables such CMRS systems to reuse frequencies and accomplish seamless hand-offs of subscriber calls. 47 C.F.R. § 52.21(c).

[286] As discussed below, the CMRS LNP requirements for the largest 100 MSAs also require covered CMRS carriers outside the largest 100 MSAs to support roaming by CMRS customers from the largest 100 markets that use ported numbers. *See* 47 C.F.R. § 52.31(a)(2). Thus, CMRS carriers outside the largest 100 MSAs will be required to make certain LNP-related changes to their networks to support roaming even if they do not receive a request to provide LNP to customers in their home market. These changes, however, are not as extensive as those that would be required to implement LNP for their own customers, or to participate in number pooling.

[287] *Notice*, 14 FCC Rcd at 10392.

in the largest 100 MSAs by November 24, 2002.[288] Accordingly, we proposed to subject covered CMRS carriers to any thousands-block number pooling requirement that we may adopt for LNP-capable wireline carriers once those CMRS carriers are LNP-capable and sought comment on that proposal.[289] We also sought comment on whether there is a need to consider an accelerated LNP-deployment schedule, earlier than the current date of November 24, 2002, for CMRS carriers to address specific number exhaust problems by thousands-block number pooling.[290]

130. Furthermore, we sought comment on the assertions of CMRS carriers that their participation in thousands-block number pooling would have little impact on number utilization and the assertions of state regulators that the participation of CMRS providers in thousands-block number pooling would enhance the effectiveness of thousands-block number pooling.[291] We also sought comment on the projections presented by the NANPA concerning the comparative impact on NANP exhaust depending on whether thousands-block number pooling includes CMRS participants.[292] If we were to extend thousands-block number pooling requirements to covered CMRS providers, we sought comment on whether these requirements should be limited to specific NPAs or rate centers or whether they should apply to all NPAs located in the largest 100 MSAs.[293] We also sought comment on the potential cost to covered CMRS providers if they are subject to thousands-block number pooling requirements.[294] We further sought comment on the timeframe that would be required for implementation of thousands-block number pooling by covered CMRS providers following LNP deployment and on the ability of covered CMRS carriers to participate in decisions regarding thousands-block number pooling administration prior to their development of LNP capability. Moreover, we asked commenters to address whether there are any other technical considerations and administrative issues unique to covered CMRS carriers that could affect the timing of their participation in thousands-block number pooling.[295]

131. Because it is not certain to what degree the second category of non-LNP-capable

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[288] *CMRS LNP Forbearance Order*, 14 FCC Rcd at 3092. *See also* Cellular Telecommunications Industry Association's Petition for Forbearance From Commercial Mobile Radio Services Number Portability Obligations, WT Docket No. 98-229, *Order on Reconsideration*, FCC 00-47 (rel. Feb. 23, 2000). As with wireline carriers, wireless carriers are required to deploy LNP in the top 100 MSAs only within switches for which they receive specific requests for LNP capability. *See* Telephone Number Portability, *First Memorandum Opinion and Order and Order on Reconsideration*, 12 FCC Rcd 7236, 7313-14 (1997) (*Telephone Number Portability First Memorandum Opinion and Order on Reconsideration*).

[289] *Notice*, 14 FCC Rcd at 10392-93.

[290] *Id.*

[291] *Id.* at 10393-94.

[292] *Id.* at 10394.

[293] *Id.* at 10395.

[294] *Id.*

[295] *Id.*

carriers, wireline and covered CMRS carriers outside the top 100 MSAs, will be subject to requests to provide LNP in their own markets,[296] or when such deployment will occur, we sought comment on the manner in which carriers in this category should be required to participate in any thousands-block number pooling regime we may establish for wireline and CMRS carriers in the largest 100 markets.[297] Specifically, we sought comment on whether a carrier in this category that establishes LNP capability based on another carrier's request presumptively should be required to participate in thousands-block number pooling and whether there might be circumstances under which we should impose thousands-block number pooling obligations on carriers even if they have not received a request for LNP from another carrier. We further sought comment on whether implementing the network changes required to support roaming would affect the cost to CMRS carriers of implementing thousands-block number pooling, even if such carriers do not receive a request from a competing carrier to deploy LNP in their home markets.[298]

132. We sought comment on whether the need for numbering resource optimization warrants the participation in thousands-block number pooling by wireless carriers that are not included in the definition of covered CMRS providers.[299] We recognized that extending thousands-block number pooling requirements to these carriers would impose significant costs and burdens that we concluded in the *Telephone Number Portability* proceeding are not warranted for LNP purposes.[300] Therefore, we stated our belief that such requirements should not be extended to non-LNP-capable carriers without a substantial showing that their participation in thousands-block number pooling would have significant numbering optimization benefits, otherwise unrealizable, that outweigh those costs.[301]

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[296] Covered CMRS carriers outside the largest 100 MSAs will be required to deploy LNP at some time in the future only if and when they receive a request from a competing carrier. Under the timetable established by the *CMRS LNP Forbearance Order*, such deployment would not occur before May 22, 2003. *See generally*, *CMRS LNP Forbearance Order*, 14 FCC Rcd at 3092; *see also* 47 C.F.R. § 52.31(a)(iv).

[297] *Notice*, 14 FCC Rcd at 10396.

[298] *Id.* at 10396-97.

[299] *Id.*

[300] In the *Telephone Number Portability* proceeding, we concluded that these services should not be subject to LNP requirements because LNP implementation by these classes of carriers would have little impact on wireless-wireless or wireless-wireline competition. *See* Telephone Number Portability, *First Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 8352, 8433-38 (1996) (*Telephone Number Portability First Report and Order*); *see also Telephone Number Portability First Memorandum Opinion and Order on Reconsideration*, 12 FCC Rcd at 7236; Telephone Number Portability, *Second Memorandum Opinion and Order on Reconsideration*, 13 FCC Rcd 21204, 21228-31 (1998) (*Telephone Number Portability Second Memorandum Opinion and Order*).

[301] *Notice*, 14 FCC Rcd at 10397-98.

133. We sought comment on the feasibility of alternative numbering resource optimization methods, such as Direct Inward Dialing (DID) agreements,[302] NXX code sharing arrangements,[303] and the Colorado Rural LEC Proposal[304] that would enable non-LNP-capable carriers to participate in or approximate the effect of thousands-block number pooling without requiring them to develop LNP capability. Because there may be non-LNP-capable carriers in a market that are unable to use an "alternative" pooling method not based on LNP, we sought establishment of a number allocation method that does not discriminate unduly in favor of either thousands-block number pooling participants or thousands-block number pooling non-participants.[305] In particular, we sought comment on how requests for numbering resources should be sequenced by the thousands-block number Pooling Administrator to avoid undue discrimination in favor of either thousands-block number pooling participants or thousands-block number pooling non-participants.[306]

b. Discussion

134. We adopt the tentative conclusion in the *Notice* that, once covered CMRS carriers are LNP-capable, they should be equally subject to any thousands-block number pooling requirements that we adopt for LNP-capable wireline carriers.[307] This means that covered CMRS providers will be required to implement thousands-block number pooling after the forbearance from the LNP requirements expires on November 24, 2002, that other CMRS providers will not be required to implement thousands-block number pooling, and that all restrictions on the implementation of number pooling applicable to LNP-capable carriers) are equally applicable to covered CMRS providers.[308] We direct CMRS providers to participate in creating the thousands-

[302] *Id.* at 10398-99. Under DID agreements, ILECs set aside blocks of numbers for paging carriers and route calls to the numbers to them through PBX or Centrex trunks.

[303] *Id*. NXX code sharing arrangements are similar to DID agreements, except that they do not involve the use of PBX or Centrex trunks.

[304] *Id*. Under the Colorado Rural LEC Proposal, a small LEC could have, for example, only 400 telephone numbers assigned within the 0000-0999 block of an NPA-NXX, but it would have all 10,000 numbers associated with the NXX allocated to it. Since the numbers 1000-9999 associated with NXX would not be assigned, these numbers could be released to the pool administrator for allocation elsewhere in the rate center. The small LEC's switch could be programmed to handle calls from its own subscribers to telephone numbers in the 0000-0999 block that it retains, including vacant number treatment. The switch could also be programmed to direct calls initiated by the small LEC's own subscribers to telephone numbers in the 1000-9999 number block (which contains nine thousand numbers) to an LNP-capable switch, either to obtain the routing information so it could route the call itself, or to have the LNP-capable switch route the call. Calls coming to the LNP-capable switch to numbers that are within the 0000-0999 number block would be sent to the small LEC's switch. Calls to numbers in the 1000-9999 number block would be routed using a query to the LNP database to determine the appropriate LRN.

[305] *Notice*, 14 FCC Rcd at 10399.

[306] *Id.*

[307] *Id.* at 10393.

[308] Thus, for example, covered CMRS providers must implement thousands-block number pooling only in switches for which they have received a request for number portability from another carrier.

block pooling architecture so as to be ready to implement pooling as soon as they become LNP-capable,[309] and, in the meantime, to further explore non-LNP alternatives to number conservation. Along these lines, as an alternative approach to number optimization, non-LNP-capable carriers will be subject to utilization thresholds to obtain growth codes. When a non-LNP-capable carrier becomes LNP-capable, whether voluntarily or pursuant to the Commission's rules, that carrier will be required to participate in thousands-block number pooling in all pooling areas, and as such will no longer be subject to meeting the utilization threshold for growth codes in those pooling areas.

135. We further find that, as pooling is implemented, non-LNP-capable carriers must continue to be able to obtain the numbering resources they need, despite their inability to participate in thousands-block number pooling. Thus, we require the NANPA to ensure the continued existence of concurrent number allocation mechanisms available to non-LNP-capable carriers and to ensure that numbers are administered in a manner that does not discriminate on the basis of a carrier's LNP-capability status. We also ask further comment in the *Further Notice* on whether covered CMRS carriers should be required to participate in pooling immediately upon expiration of the LNP forbearance period on November 24, 2002, or whether a transition period beyond that date to implement pooling will be necessary and, if so, what the length of that transition period should be.

1. Impracticability of Thousands-Block Number Pooling for Non-LNP-Capable Carriers

136. In the *CMRS LNP Forbearance Order*, we granted CMRS providers until November 24, 2002, to implement LNP capability because (1) we determined that the industry needed time to develop and deploy the technology that will allow viable implementation of number portability, including the ability to support seamless nationwide roaming,[310] and (2) we determined that extending the deadline is consistent with the public interest for competitive reasons because it would give CMRS carriers greater flexibility to complete network buildout, technical upgrades and other improvements which will enhance service and promote competition.[311] We have not been provided with any information on the record in this proceeding that would lead us to conclude that wireless (or wireline) service providers can implement

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309 *See, e.g.*, Maine Commission comments at 22; New Hampshire Commission comments at 15.

310 Nationwide roaming is a requirement for CMRS LNP-capability. *See Telephone Number Portability First Report and Order*, 11 FCC Rcd at 8440. For CMRS carriers to implement LNP that also supports nationwide roaming, the industry has chosen a method that requires separation of the Mobile Identification Number (MIN), which is used to identify the mobile unit to the carrier's network, from the Mobile Directory Number (MDN), the number that is dialed to reach the mobile unit. Separation of the MIN and MDN, which are associated with a particular carrier and are currently the same for each subscriber of AMPS, CDMA, and TDMA-based carriers, will require significant reprogramming of roaming software and databases. While standards for this separation have been adopted, industry has not yet reached consensus on standards for integration of wireless and wireline LNP. For wireless LNP that also supports nationwide roaming to function properly, all CMRS carriers must separate the MIN and MDN, and at least support the querying capability required for LNP.

311 *CMRS LNP Forbearance Order*, 14 FCC Rcd at 3104-05.

thousands-block number pooling prior to acquiring LNP capability, as it is number portability that allows a thousand-number block to be assigned to a carrier from an NXX that has been assigned to another carrier, thus permitting the contribution and distribution of thousand number blocks.[312] Thus, we agree with various CMRS providers that we should not require service providers to participate in thousands-block number pooling prior to these carriers obtaining LNP capability.[313]

137. Even as we find that carriers need to have implemented LNP prior to being able to participate in thousands-block number pooling, we decline to order covered CMRS service providers to speed up their implementation of LNP solely for the purpose of implementing thousands-block number pooling. There is dispute as to the degree to which CMRS providers' participation in thousands-block number pooling before November 2002 would extend the life of the NANP. It is clear, however, that such a requirement would necessitate substantial effort and expense.[314] Moreover, requiring CMRS providers to move immediately to thousands-block number pooling may divert them from other important tasks, such as implementing the Commission's requirements concerning CALEA, 911, and LNP itself.[315] Until CMRS service providers obtain LNP capability under the schedule previously imposed by the Commission, we require them instead to participate in alternative forms of number optimization, such as compliance with utilization thresholds, as discussed earlier.

138. For the same reasons as we have discussed for delaying the implementation of thousands-block number pooling for CMRS providers, we will not require thousands-block number pooling for non-"covered" CMRS providers, such as paging companies. Since they are not required to implement LNP capability, it would be impractical to require them to implement thousands-block number pooling. Further, we will not require wireline carriers who are not LNP-capable to acquire that capability solely to participate in thousands-block number pooling at the present time.

2. Desirability of Thousands-Block Number Pooling for Covered CMRS

[312] There are other arrangements, such as Type 1 interconnection arrangements, that may enable wireless service providers to achieve some of the benefits of number pooling, such as obtaining and using numbers in smaller increments, prior to implementing LNP. These types of NXX code sharing arrangements, however, are not true pooling systems. Moreover, the number optimization benefits that may be achieved through Type 1 interconnection arrangements may be quite limited, as generally only one wireless carrier may share any NXX code with the wireline code holder pursuant to such arrangements.

[313] *See, e.g.*, CTIA comments at 29; CTIA reply comments at 21-23; PCIA comments at 23-24; PCIA reply comments at 16-17.

[314] For example, CTIA claims that the life of the NANP is extended, at most, by only one year and eight months if CMRS participation is required before 2003, and criticizes the NANP Exhaust study's claims that inclusion of the CMRS providers in thousands-block number pooling would significantly expand the life of the NANP. On the other hand, Maine relies on both the NANP exhaust study and its own number utilization data to support its contention that CMRS participation in pooling would significantly extend the life of NANP. *See* CTIA comments at 31-34; Maine Commission comments at 21; CTIA reply comments at 21. *See also* GTE comments at 50; VoiceStream comments at 29; Omnipoint comments at 31.

[315] *See, e.g.*, AT&T comments at 46-47; CTIA comments at 21; GTE comments at 51-52.

Carriers

139. We find that it is in the public interest to require covered CMRS service providers to participate in thousands-block number pooling once they have acquired LNP capability. We agree with the arguments of various state commissions and carriers that, intuitively, a thousands-block pooling plan that includes all LNP-capable carriers would enable a more efficient and equitable conservation of numbers than a plan that excludes certain providers.[316] Thus, requiring CMRS service providers to participate in thousands-block number pooling once they have acquired LNP capability balances the desire to have as broad a range of thousands-block number pooling participants as possible with the desire to avoid imposing unnecessary costs on covered CMRS providers.

140. We reject the arguments of certain CMRS providers that their participation in thousands-block number pooling will have so minimal an effect on number exhaustion that they ought to be excluded altogether.[317] These parties rely on the contentions that, in general, the number utilization rates of CMRS providers are higher than equivalent utilization rates of wireline carriers, that CMRS has been characterized by rapid growth and churn, and that CMRS providers typically do not need numbers in every rate center in a service area.[318] Although there may be truth to these assertions in certain instances, there is also evidence in the record that in many areas, CMRS providers would be able to make significant donations to thousands-block number pools and otherwise meaningfully contribute to the numbering efficiencies to be gained by thousands-block number pooling. For example, a study by the Colorado Numbering Task Force which shows that, in 1997 and 1998, cellular and PCS providers in that state had an average utilization rate of 58%, suggests that, despite this relatively high utilization rate, such carriers held over 1,300,000 numbers that could potentially be made available for thousands-block number pooling.[319] Moreover, CMRS utilization rates are not uniformly high. For example, the Maine Commission asserts that the wireless utilization rate in that state is only 33%.[320] Finally, we find that there is no reason to exempt CMRS providers, or any other class of carriers, once LNP-

316 *See, e.g.*, Colorado Commission comments at 6-7; Maine Commission comments at 21-22; Ohio Commission comments at 30; WinStar comments at 27-30.

317 *See, e.g.*, CTIA comments at 26-34; PCIA comments at 24-26; Voice Stream comments at 26. There is some suggestion that CMRS participation in thousands-block number pooling might significantly extend the life of the NANP. *See Notice*, 14 FCC Rcd at 10393-94. (citing the NANP Exhaust Study estimate that if thousands-block number pooling were implemented in 2000 by all wireline, CMRS and paging carriers, the life of NANP would be extended until 2051, compared with 2027 with no CMRS participation). It should be noted, however, that the NANP Exhaust study has been criticized by a number of the parties. *See, e.g.*, CTIA comments at 31-34; Omnipoint comments at 24-27; PCIA comments at 24-25.

318 The number of rate centers in which wireless carriers may take numbers can range significantly, depending on geographic area, and the interconnection and billing arrangements they make with local wireline carriers. *See generally* Joint Cellular Carriers comments, Addendum (Joint Comments on the NANC Report).

319 Colorado Commission comments at 7.

320 Maine Commission comments at 21-22. The Maine Commission further notes that in one rate center, one wireless carrier only used nine of the 20,000 numbers assigned to it. *Id.*

capable, from participation in thousands-block number pooling based on high growth rates. Although thousands-block number pooling constrains carriers to acquire additional numbering resources in smaller increments, it does not limit the quantity of resources that a carrier may obtain, provided it can sufficiently demonstrate need in accordance with the guidelines. For these reasons, we conclude that once CMRS providers become LNP-capable, they should be treated the same as other LNP-capable users of numbering resources, including being required to participate in thousands-block number pooling under the same circumstances.

3. Utilization Threshold for Non-LNP-Capable Carriers

141. Although we decline to require CMRS providers to participate in thousands-block number pooling until they achieve LNP capability, we require all non-LNP-capable carriers, including non-covered CMRS providers, to implement certain alternative number optimization measures so long as they are not LNP-capable. Specifically, we adopt the requirement, suggested by Nextel, and as discussed above, that non-LNP-capable carriers achieve a number utilization threshold before they are eligible to obtain a new growth code.[321] To require CMRS providers to meet utilization thresholds where they are not LNP-capable and therefore cannot practically participate in thousands-block number pooling will result in progress toward meeting our number conservation goals despite the lack of thousands-block number pooling by such carriers. Similarly, we will require carriers that are not required ever to become LNP-capable, such as paging companies, to meet utilization thresholds before obtaining growth codes, and as well for all other non-LNP-capable carriers (for example, wireline carriers in areas that do not have LNP-capability).

142. We note here that, at the current time, we will not require carriers participating in thousands-block number pooling to meet a utilization threshold to receive growth codes. Once these carriers begin thousands-block number pooling, they will be required to identify unused or lightly-used thousands blocks within their inventories to be contributed back to the pool.[322] Moreover, thousands-block number pooling carriers will obtain new numbers in thousand number increments, and only when they can demonstrate the requisite MTE forecast.[323] Together, these aspects of pooling participation should ensure that thousands-block number pooling carriers use numbers efficiently in thousands-block number pooling areas, and we believe it would be unnecessarily burdensome to require them to comply with utilization thresholds in addition. Furthermore, as pointed out by Cincinnati Bell, unless the thresholds are set differently for thousands-block number pooling and non-pooling carriers, thousands-block number pooling carriers may be competitively disadvantaged by utilization thresholds compared with non-pooling carriers. For example, if a pooling carrier can only obtain a thousands-number block when it meets the specified threshold, and a non-pooling carrier is eligible to obtain a full NXX code, the non-pooling carrier may be able to offer service to more customers than the pooling carrier before

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[321] Nextel comments at 20; Nextel reply comments at 8. *See supra* ¶¶ 101-115 regarding our utilization threshold framework for growth codes.

[322] *See infra* ¶¶ 190-91.

[323] *See* Thousands Block Pooling Guidelines at § 4.0 and Appendices 3 and 4.

it must request more numbers.[324] However, as stated earlier, we may revisit the issue of whether to impose utilization threshold requirements on pooling carriers in the future if we find that such thresholds significantly increase number use efficiency.[325]

C. Selection of Thousands-Block Number Pooling Administrator

a. Background

143. Section 251(e)(1) of the 1996 Act directs the Commission to "create or designate one or more impartial entities to administer telecommunications numbering and to make such numbers available on an equitable basis."[326] Section 251(e)(1) further states that nothing shall preclude the Commission from delegating to state commissions or other entities all or any portion of such jurisdiction.[327] Previously, the incumbent LEC within each geographic area had performed central office code assignment and area code relief functions, and Bell Communications Research (Bellcore) performed other numbering administration functions. As more new entrants entered the telecommunications marketplace, the incumbent LECs' continued administration of the NANP became unacceptable for competitive reasons. Therefore, in 1995, the Commission directed the NANC to recommend an independent, non-governmental entity that is not closely associated with any particular industry segment to serve as the new NANP administrator.[328]

144. On February 20, 1997, the NANC issued a "Requirements Document," which set forth the desired qualities and attributes of the NANP administrator and the functions that it would be expected to perform.[329] On May 15, 1997, after evaluating bids from five interested parties, the NANC submitted to the Commission its recommendation that Lockheed Martin Communications Industry Services (CIS) be appointed to serve as the NANP administrator. In October 1997, the Commission accepted the recommendation of the NANC and selected Lockheed Martin CIS as the new NANP administrator, noting that it would perform the numbering administration functions previously performed by Bellcore, as well as area code relief

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[324] CinBell reply comments at 5.

[325] *See supra* ¶ 103.

[326] 47 U.S.C. § 251(e)(1).

[327] *Id.*

[328] Administration of the North American Numbering Plan, *Report and Order*, 11 FCC Rcd 2588, 2608 (1995) (*NANP Order*). The Commission concluded that the actions taken in the *NANP Order* satisfied the section 251(e)(1) requirement that we create or designate an impartial numbering administrator. *See Local Competition Second Report and Order*, 11 FCC Rcd at 19510. In the *Local Competition Second Report and Order*, we noted that we had required there to be a new, impartial numbering administrator and established the model for how the administrator would be chosen. *Id.* We had thus taken "action necessary to establish regulation" leading to the designation of an impartial number administrator as required by section 251(e)(1). *Id.*

[329] February 20, 1997 NANP Administration Requirements Document at § 1.2. *See* NEWS Report No. CC 97-8, NANC Seeks Proposals from the Entities Interested in Serving as North American Numbering Plan Administrator (Feb. 20, 1997).

initiation and planning and CO code administration previously performed by the incumbent LECs.[330] Lockheed Martin CIS assumed the NANP administrator functions in February 1998.[331] On November 17, 1999, the NANPA functions were transferred to NeuStar which now serves as the NANP administrator.[332]

145. In its role in advising the Commission on numbering issues, the NANC determined that thousands-block number pooling may appropriately be considered a numbering administration function, concluding that the services provided by the NANP administrator should be expanded to include all of the functions of the Pooling Administrator. [333] With this initial conclusion, the NANC directed the NANPA Oversight Working Group to develop a Thousand Block Pool Administrator Requirements Document with the goal of submitting this document to NeuStar for a response. On January 18, 1999, the NANC submitted this document to NeuStar and requested a response. In February 1999, the thousands-block number pooling Issues Management Group (Pooling IMG) was created within the NANC to assess NeuStar's thousands-block number pooling administration proposal. The Pooling IMG's objective was to complete a proposed Pooling Administrator Requirements Document, negotiate the proposed terms and conditions under which the Pooling Administrator would function, and make a recommendation to the NANC.[334] During the next several months, NeuStar and the Pooling IMG held discussions regarding the proposal.

146. On July 21, 1999, the NANC approved the NANC Steering Committee's recommendation that the NANP administrator be appointed the Pooling Administrator subject to certain terms and conditions.[335] On July 30, 1999, then-NANC Chairman Alan Hasselwander sent

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330 *See* Administration of the North American Numbering Plan, *Third Report and Order*, Toll Free Service Access Codes, *Third Report and Order*, 12 FCC Rcd 23040, 23042, 23051-52, 23071-72 (1997) (*NANP Administration Third Report and Order*).

331 Lockheed Martin CIS had assumed the CO code administration functions in the United States under a longer transition timetable. The transition was completed in July 1999.

332 On December 21, 1998, Lockheed Martin IMS informed the Commission that it had signed an agreement to sell Lockheed Martin CIS, the division that serves as the NANPA, to the management of that division and Warburg, Pincus Equity Partners, L.P., an affiliate of Warburg, Pincus and Company. *See* Request of Lockheed Martin Corporation and Warburg, Pincus & Co. for Review of the Transfer of the Lockheed Martin Communications Industry Service Business from Lockheed Martin Corporation to an Affiliate of the Warburg, Pincus & Co., CC Docket No. 92-237, NSD File No. 98-151, at 1, 5 (Dec. 21, 1998). On November 17, 1999, the Commission approved the transfer of NANPA functions to NeuStar, Inc., which is composed of many of the same personnel employed by the CIS unit. Request of Lockheed Martin Corporation and Warburg, Pincus & Co. for Review of the Transfer of the Lockheed Martin Communications Industry Services Business, *Order*, 14 FCC Rcd 19792 (1999). NeuStar also serves as the Local Number Portability Administrator for all eight regions in the United States and Canada, providing NPAC services.

333 *See* NANC Meeting Minutes, March 16-17, 1999, at 14.

334 *See* Thousand Block Pooling Administration Issue Management Group, Pooling Administration Report and Recommendation to the North American Numbering Council, Feb. 8, 2000, at 3.

335 *See* NANC Meeting Minutes, July 21, 1999, at 25-26.

a letter to the Commission recommending that the NANP administrator be the national Pooling Administrator.[336] The NANC had concluded that having a separate entity serve as Pooling Administrator would lead to a more costly and less efficient arrangement, and likely delay the implementation of a thousands-block number pooling rollout. The Pooling IMG presented an updated Thousand Block Pool Administrator Requirements document to the NANC on December 22, 1999, which contained additional requirements for system delivery, performance credits, and provided further explanation regarding the intellectual property rights of the customer.[337] NeuStar submitted a response to the Thousand Block Pool Administrator Requirements Document on January 14, 2000. On February 23, 2000, the NANC recommended to the Commission that NeuStar be selected as the Pooling Administrator.

147. As noted above, several state public utility commissions have been granted the authority to implement interim thousands-block number pooling trials.[338] NeuStar has been selected by these states to serve as the interim Pooling Administrator for the state pooling trials currently in place and some of those that are planned.[339] In the *Notice*, we sought comment on whether the NANP administrator should serve as the Pooling Administrator or whether we should seek competitive bids in response to a request for proposals or requirements, as we did with respect to NANP administration.[340]

b. Discussion

148. We find that our authority under section 251 (e)(1) of the 1996 Act to designate or create one or more impartial entities to administer telecommunications numbering and to make numbers available on an equitable basis extends to thousands-block number pooling administration. We also conclude that seeking competitive bids in response to a request for a proposal or requirements for thousands-block number pooling administration, as we did with respect to NANP administration, furthers the competitive framework that Congress established in implementing the 1996 Act and is consistent with federal procurement law. We believe that a competitive bid process that is open and fair, and will include the opportunity for participation

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336 *See* Letter from Alan C. Hasselwander, Chairman, North American Numbering Council, to Lawrence E. Strickling, Chief, Common Carrier Bureau, dated July 30, 1999, *available at* <http://www.fcc.gov/ccb/Nanc/para184letter.doc>.

337 *See* Updated Thousands Block Pool Administrator Requirements Document, Dec. 22, 1999, *available at* <http://www.fcc.gov/ccb/Nanc/fpa1222.doc>. The NANC forwarded this item to the Commission on January 10, 2000.

338 *See California Delegation Order*, 14 FCC Rcd at 17490-96; *Connecticut Delegation Order* at ¶¶ 12-24; *Florida Delegation Order*, 14 FCC Rcd at 17510-16; *Maine Delegation Order*, 14 FCC Rcd at 16451-57; *Massachusetts Delegation Order*, 14 FCC Rcd at 17451-57; *New Hampshire Delegation Order* at ¶¶ 24-34; *New York Delegation Order*, 14 FCC Rcd at 17470-76; *Ohio Delegation Order* at ¶¶ 27-39; *Texas Delegation Order* at ¶¶ 11-23; *Wisconsin Delegation Order* at ¶¶ 32-44.

339 NeuStar serves as the interim thousands-block number Pooling Administrator in several states delegated thousands-block number pooling authority in 1999.

340 *Notice*, 14 FCC Rcd at 10402; *see also NANP Order* at 2616.

from all interested parties, will ensure the selection of the most qualified**,** cost-efficient Pooling Administrator.[341]

149. We note that appointing NeuStar, the current NANP administrator, to become the Pooling Administrator was also broadly supported in the comments and the replies to the *Notice*.[342] Some commenting parties nonetheless opposed a sole source procurement framework for the selection of a national thousands-block number Pooling Administrator.[343] Telcordia Technologies, Inc. (Telcordia), for example, expressed concern that the Commission would select the current NANP administrator as the Pooling Administrator without providing any opportunity for competition.[344] Telcordia further stated that any selection of the Pooling Administrator without holding a fair and open competitive bidding process is inappropriate and unlawful.

150. In contrast, NeuStar alleges that competitive bidding for the thousands-block number Pooling Administrator is not required.[345] NeuStar asserts that selection of the Pooling Administrator is more analogous to the designation of an agent and, as such, is governed by the Commission's organic authority as a regulator under the Communications Act, as amended, and not by federal procurement laws.[346] In the alternative, NeuStar alleges that even if such procurement requirements were applicable, competition is still not mandated, arguing that the Commission could modify NeuStar's existing NANPA functions to include thousands-block

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[341] Letter from James J. McCullough, Counsel to Telcordia, to Magalie Roman Salas, dated February 16, 2000, at 5 (explaining that competition will provide the greatest opportunity to diversify numbering administration).

[342] *See, e.g.*, Ohio Commission comments at 34; Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM at 15; Ameritech comments at 49; AT&T comments at 50; PrimeCo comments at 8-9 (stating that using another entity or multiple entities on a state-by-state basis would hinder the timely and competitively neutral allocation of NXX codes);

[343] *See* Letter from James J. McCullough, Counsel to Telcordia, to Magalie Roman Salas, dated February 16, 2000; Letter from James J. McCullough, Counsel to Telcordia, to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 9, 2000; Letter from James J. McCullough, Counsel to Telcordia, to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 10, 2000. *See also* WinStar comments at 30-31 (arguing for a competitive bidding process to alleviate neutrality concerns that would arise if the NANPA were selected as the Pooling Administrator).

[344] Letter from James J. McCullough, Counsel to Telcordia, to Magalie Roman Salas, dated February 16, 2000, at 2.

[345] Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated February 25, 2000, at 2; Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated March 9, 2000; Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated March 13, 2000.

[346] Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated February 25, 2000. We note, however, that in all of the case authorities cited by NeuStar, the government used competitive procedures in selecting the agents at issue. *See, e.g., United States v. Citizens & Southern Nat'l Bank*, 889 F.2d 1067, 1069 (Fed. Cir. 1989) (more than 20 proposals received); *Grisby Brandford & Co. v. A.H. Williams*, 869 F. Supp. 984, 988 (D.D.C. 1994) (11 proposals received); *Saratoga Dev. Corp. v. United States*, 21 F.3d 445, 451 (D.C. Cir. 1994) (7 proposals received); *National Loan Servicecenter v. Department of Housing and Urban Dev.*, GSBCA No. 12193-P, 93-2 B.C.A. (CCH) ¶ 25,853 (March 2, 1993), *available at* 1993 WL 59339.

number pooling, or award it a new contract on a sole source basis.[347] We need not resolve whether competition is required, however, because even if it is not, the Commission is free to select the Pooling Administrator on a competitive basis, as it did in choosing the NANP administrator in 1997. As a general matter, federal law assumes that competitive procedures best serve the public interest, and the arguments presented to us to designate NeuStar on a sole-source basis in this case do not convince us to proceed otherwise. First, the benefits that can be achieved through a competitive process, such as innovative proposals and lower costs, may well counterbalance any benefits of a sole source arrangement. Moreover, it is far from certain that awarding a contract to NeuStar would lead to the expeditious implementation of the thousands-block number polling functions. The *ex parte* communications filed in the record of this proceeding indicate that any such award likely would be challenged by other potential service providers, and, if so, may be subject to automatic stay provisions in federal procurement law or other delay.[348] Thus, it is not certain that significant time efficiencies would be obtained. In any event, we believe that completion of a competitive procurement can be accomplished within a reasonable timeframe. NeuStar also believes it is the most qualified provider of pooling administration. To the extent that NeuStar may be better qualified, it will have the opportunity to demonstrate that in the evaluation process. In the interim, however, because of the potential for innovative concepts and cost savings obtained through free and open competition and the fact that designation of NeuStar now as the Pooling Administrator may not lead to more expeditious provision of national pooling administration, and because competitive procedures can be initiated reasonably quickly, we believe that the public interest is best served through a competitive process that is consistent with our pro-competitive, deregulatory national policy and the policy considerations underlying federal laws requiring competition.

151. MCI WorldCom's *ex parte* submission makes similar arguments to NeuStar's, and also alleges that the federal requirement for full and open competition is inapplicable here because the funding for the Pooling Administrator is not of a public nature.[349] However, it is clear that even in contracts that do not involve the expenditure of money by the agency, the General Accounting Office will review protests under its authority under the Competition in Contracting Act.[350] In any event, based on our conclusion that the public interest is better served through the competitive bidding process, we conclude that the selection of the Pooling Administrator should be done under this framework in this case.

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[347] Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated March 9, 2000; Letter from Cheryl A. Tritt, Counsel to NeuStar, to Magalie Roman Salas, FCC, dated March 13, 2000.

[348] *See* Letter from James J. McCullough, Counsel to Telcordia, to Magalie Roman Salas, dated February 16, 2000; Letter from James J. McCullough, Counsel to Telcordia to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 9, 2000; Letter from James J. McCullough, Counsel to Telcordia, to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 10, 2000. *See also* 31 U.S.C. § 3553 (c)-(d); 4 C.F.R. § 21.6.

[349] Letter from Henry G. Hultquist, MCI WorldCom, to Christopher Wright, FCC, and Lawrence Strickling, FCC, dated March 1, 2000, at 6-7.

[350] 41 U.S.C. §§ 251 et seq.; 31 U.S.C. §§ 3551 et seq.; *see also* N&N Travel and Tours, Inc. B-283731, B-283731.2, 99-2 CPD, ¶ 113 (Dec. 21, 1999), *available in* 1999 WL 1267046.

152. We acknowledge that it may be desirable in the future to link the thousands-block number pooling administration and central office code administration duties to take advantage of any synergies that may exist between these functions. We also acknowledge the efforts of the NANC which has provided an initial proposal of the duties and functions of the Pooling Administrator. However, we recognize that vendor diversity for number administration services may have advantages for the industry and the public. We believe that a competitive bidding process will serve the public interest by helping to ensure the selection of the most qualified Pooling Administrator who can perform the duties in the most cost effective manner.[351] We conclude, therefore, that based on policy and legal grounds, we will seek competitive bids for a national Pooling Administrator.

153. *Criteria for Competitive Bidding.* We believe that thousands-block number pooling administration would best be performed by a single, non-governmental entity selected by this Commission and, therefore, subject to our oversight, but also separate from this Commission and not closely identified with any particular industry segment. As with NANP administration, we find that it would be very difficult, if not impossible, for a thousands-block number Pooling Administrator closely associated with a particular segment of the telecommunications industry to be impartial, and that even if such an entity were impartial, there could still be the perception that it was not, as a result of such an association.[352]

154. We conclude, therefore, that the thousands-block number Pooling Administrator should be a non-governmental entity that is not aligned with any particular telecommunications industry segment.[353] The Pooling Administrator must be fair and impartial. The Pooling Administrator must also meet neutrality criteria similar to that articulated in the *NANP Administration Third Report and Order*: 1) the Pooling Administrator may not be an affiliate[354] of any telecommunications service provider as defined in the 1996 Act;[355] 2) the Pooling

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351 *See* WinStar comments at 30-31.

352 *NANP Order*, 11 FCC Rcd at 2613.

353 *Id.* at 2609.

354 "Affiliate" is defined as a person who controls, is controlled by, or is under the direct or indirect common control with another person. A person shall be deemed to control another if such person possesses, directly or indirectly; (i) an equity interest by stock, partnership (general or limited) interest, joint venture participation, or member interest in the other person ten percent (10%) or more of the total outstanding equity interests in the other person; or (ii) the power to vote ten percent (10%) or more of the securities (by stock, partnership (general or limited) interest, joint venture participation, or member interest) having ordinary voting power for the election of directors, general partner, or management of such other person; or (iii) the power to direct or cause the direction of the management and policies of such other person, whether through the ownership of or right to vote voting rights attributable to the stock, partnership (general or limited) interest, joint venture participation, or member interest of such other person, by contract (including but not limited to stockholder agreement partnership (general or limited) agreement, joint venture agreement, or operating agreement), or otherwise. *See* 47 C.F.R. § 52.12(a)(1)(i); *see also NANP Administration Third Report and Order*, 12 FCC Rcd at 23076.

355 In the *NANP Administration Third Report and Order*, the Commission concluded, based on precedent analyzing the meaning of the term common carrier, that an entity is a telecommunications service provider if it has been authorized to offer services indiscriminately to the public, and is, therefore, providing services on a common (continued….)

Administrator and any affiliate may not issue a majority of its debt to, nor derive a majority of its revenues from any telecommunications service provider;[356] and 3) notwithstanding the neutrality criteria set forth in 1) and 2) above, the Pooling Administrator may be determined to be or not to be subject to undue influence by parties with a vested interest in the outcome of numbering administration and activities.[357]

155. For purposes of the competitive bidding process, technical requirements for a Pooling Administrator must be specified. The NANC has been addressing these significant issues in its role in advising the Commission on numbering. To ensure a competitive process, and within 90 days of release of this *Report and Order*, we direct the NANC, with the active participation of all interested parties, to propose revisions to the existing, proposed thousand-block Pooling Administrator Requirements Document to specify the technical requirements for the Pooling Administrator. In addition, the Commission will release a Public Notice seeking comment on the technical requirements for the Pooling Administrator which it will consider. Finally, we delegate authority to the Commission's Office of the Managing Director, with the assistance of the Common Carrier Bureau and the Commission's Office of General Counsel, to prepare the necessary bidding information and to develop an appropriate evaluation process. Based upon these efforts, the Commission will solicit bids for a national Pooling Administrator to serve until the completion of the current NANP administrator term.

D. Implementation Issues

1. National Framework

156. We believe based on the readiness of thousand block number pooling standards and technical requirements,[358] that thousands-block number pooling can be implemented on a national level within nine months of the selection a national thousands-block number Pooling Administrator. In the interim, we will continue to make individual delegations of authority to states seeking to implement thousands-block number pooling trials, subject to the parameters we set forth in our previous orders delegating additional numbering authority to state commissions to the extent that they are consistent with our national pooling framework set forth in this *Report and Order*.[359] Although the ultimate goal, to maximize the optimization of the resource, is to implement pools in as many rate centers as possible, we are constrained from implementing

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carrier basis. *NANP Administration Third Report and Order*, 12 FCC Rcd at 23077. *See also* Universal Service Order Federal-State Joint Board on Universal Service, *Report and Order*, 12 FCC Rcd 8776, 9177 (1997); *National Association of Regulatory Utility Commissioners v. FCC*, 553 F.2d 601, 608 (D.C. Cir. 1976); MTS and WATS Market Structure, Phase I, *Third Report and Order*, 93 FCC 2d 241 (1982).

356 "Majority" is defined to mean greater than 50%, and "debt" is defined to mean stocks, bonds, securities, notes, loans or any other instrument of indebtedness. 47 C.F.R. § 52.12(a)(1)(ii); Requirements Document at § 1.2; *see also NANP Administration Third Report and Order*, 12 FCC Rcd at 23076.

357 47 C.F.R. § 52.12(a)(1)(iii); *see also NANP Administration Third Report and Order*, 12 FCC Rcd at 23076.

358 *See infra* ¶¶ 172-83.

359 *See supra* ¶ 128.

pooling everywhere because it is dependent on LNP capability. Therefore, when we begin to implement pooling at the national level, we will initially concentrate our implementation efforts in those areas in which all or most carriers are LNP-capable—*i.e.*, the top 100 MSAs and in areas where pooling trials have begun. Once thousands-block pooling is implemented in an area, LNP-capable carriers will only receive numbers in blocks of one thousand for all purposes, including the establishment of an initial footprint as well as for growth needs. Consistent with the Thousand Block Pooling Guidelines, carriers will be required to donate all unused or lightly-used blocks (*i.e.*, with ten percent or less contamination) to initially stock the pool.[360] Carriers that participate in pooling will not be required to meet utilization thresholds to obtain growth codes initially. We may, however, revisit the question of whether all carriers should be subject to meeting a utilization threshold to obtain growth codes if we find that such thresholds significantly increase numbering use efficiency.

a. Implementation Schedule

157. In the *Notice*, we acknowledged that thousands-block number pooling could only be implemented in a limited number of areas at any given time. We observed that, because LNP capability is mandatory in the largest 100 MSAs, the degree of deployment of LNP is greatest in switches located within the largest 100 MSAs.[361] Given the relationship of LNP implementation with thousands-block number pooling, we tentatively concluded that any deployment schedule for thousands-block number pooling should initially be tied to the largest 100 MSAs.[362] In addition, we sought comment on whether the implementation should be staggered, like the LNP implementation schedule, to include the largest MSAs in the first group, with implementation in smaller MSAs later.[363] Furthermore, we sought comment on whether we should establish specific criteria to justify a mandate of pooling in an area, or, to relieve an area from a pooling mandate.[364] We further sought comment on which entity, this Commission or a state commission, should decide whether to implement pooling in a given area.[365] In the alternative, we sought comment on whether state commissions (or another entity) could decide to opt into or opt out of an established implementation schedule for nationwide roll-out of pooling and also whether another entity should be permitted to make this decision when the state commission declines to do so.[366]

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360 *See* Thousand Block Pooling Guidelines at § 3.0.

361 *Notice*, 14 FCC Rcd at 10386. The Commission required wireline carriers in the largest 100 MSAs to implement LNP as of December 31, 1998, in switches that another carrier has requested be made LNP capable. *See* 47 C.F.R. section 52.23(b)(1). As of January 1, 1999, LECs may request LNP in other LECs' individual switches in areas outside of the largest 100 MSAs, to be provided no later than six months after receiving the request. CMRS carriers are not required to deploy LNP until November 24, 2002. 47 C.F.R. § 52.23(b)(2)(iv)(C) and (D).

362 *Notice*, 14 FCC Rcd at 10386.

363 *Id.* at 10390.

364 *Id.* at 10387-88.

365 *Id.* at 10387.

366 *Id.*

We further sought comment on whether the choice to opt in or opt out of an established implementation schedule for the national pooling framework should be made on an entire MSA, an NPA within the MSA, or on a rate center by rate center basis.[367] Because carriers are only required to implement LNP if requested by another carrier subject to the requirements established by this Commission,[368] we sought comment on whether we have the authority, under the 1996 Act, to order LNP capability primarily for the purpose of thousands-block number pooling. [369] We also sought comment on whether we may delegate to other entities the authority to order carriers to implement LNP for number utilization purposes.[370]

158. Consistent with our tentative conclusion, we conclude that the rollout of thousands-block number pooling should first occur in NPAs that are located in the largest 100 MSAs.[371] We do so because it appears that the greatest benefits from pooling are achieved when all, or most, participating carriers are LNP-capable, and thus are able to participate in pooling.[372] We note that, although we are using the MSAs to generally identify where LNP is prevalent, implementation of thousands-block number pooling would occur in specific NPAs within those MSAs.[373] Moreover, because numbers can only be pooled among carriers using numbers in a given rate center, each rate center within the pooled NPA would have to have its own pool. We further clarify that where an NPA encompasses areas both inside and area outside of the qualifying MSA, pooling will be required only in those rate centers in the NPA which are a part of the MSA.

159. Most commenters also support a staggered roll-out schedule, which, similar to the LNP implementation schedule, includes NPAs within the largest MSAs in one group, with implementation in NPAs within smaller MSAs later.[374] Although most states and many carriers recommend that thousands-block number pooling be available for implementation immediately in

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367 *Id.* at 10390.

368 *See* 47 C.F.R. § 52.23(b)-(c).

369 Currently, our rules specify that only another carrier may request a LEC to provide number portability in a given switch. 47 C.F.R. § 52.23(b)(1).

370 *Notice*, 14 FCC Rcd at 10386.

371 *Id.* The majority of commenters also agreed with our tentative conclusion. *See, e.g.*, Cox comments at 15; GTE comments at 46; Nextel comments at 19; MediaOne at 23; U S West comments at 20; PrimeCo comments at 7; Ameritech comments at 37, 40; SBC comments at 73, 85-86; BellSouth reply comments at 12; USTA comments at 8, 9; ALTS comments at 23; U S West comments at 20; California Commission comments at 29.

372 Qwest comments at 4; Time Warner comments at 7.

373 *See* AT&T comments at 42, 44. We agree with the Colorado Commission that where a rate center is larger than the MSA, an alternative geographic boundary such as the NPA should be used. *See* Colorado Commission comments at 7.

374 *See, e.g.* AT&T comments at 39; MCI WorldCom comments at 13; USTA comments at 9.

all NPAs that are LNP-capable,[375] we find that a staggered rollout schedule is necessary, primarily because an overload of the telecommunications network may cause network disruptions when carriers' Service Control Points (SCPs) capacity has been depleted.[376] Based on input we received from NeuStar, the current pooling administrator of ongoing state trials, we also tentatively conclude that the rollout should encompass a maximum of three NPAs in each NPAC region per quarter.[377] The current Pooling Administrator of the ongoing state trials, NeuStar, Inc., has informed us that the timeframe for completion of the necessary administrative work to enable an NPA to be ready to pool is at least three months.[378] We believe that confining the rollout of pooling to three NPAs per NPAC region per quarter will ensure that our rollout schedule does not strain resources of the national thousands-block number Pooling Administrator and is undertaken smoothly. Also, a staggered roll-out will provide carriers time to upgrade or replace their SCPs and other components of their network, as necessary, if the increased volume of ported numbers as a result of pooling requires them to do so.[379] We, however, do not see the need to have three-month intervals between each phase of the staggered rollout, as suggested by Ameritech,[380] or the other more limited roll out schedules proposed by some commenters.[381] Since we believe that the benefits of thousands-block number pooling should be realized as soon as possible, we conclude that we should implement pooling in the maximum number of NPAs that are manageable.

160. In our determination of which NPAs should be placed on the initial roll-out schedule, we decline to establish specific criteria at this time.[382] We acknowledge that the use of such criteria would provide us with a more exact and localized picture regarding the suitability of pooling in each NPA. We conclude, however, that it would be extremely difficult for us to gather the necessary, underlying information that the application of such criteria would require, as well as incorporate it in a timely manner on the rollout schedule to give carriers adequate notice that

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375 Massachusetts Commission comments at 11; Massachusetts Department of Telecommunications and Energy, Attachment A, Outline of State Response to Numbering NPRM at 13, 14; Texas Commission comments at 23; North Carolina Commission comments at 12; New Hampshire Commission comments at 14. *See also* Bell Atlantic comments at 24; Cox comments at 15.

376 ALTS comments at 25; Ameritech comments at 43. An SCP is a database in the public switched telephone network that contains information and call processing instructions needed to process and complete a telephone call. The network switches access an SCP to obtain such information.

377 *See* Letter from Leonard S. Sawicki, NeuStar, to Magalie Roman Salas, FCC, dated December 21, 1999.

378 *Id.*

379 ALTS comments at 25; Ameritech comments at 43.

380 Ameritech comments at 37, 40.

381 *See, e.g.*, Ameritech comments at 37, 40; AT&T comments at 44 (one NPA a month per NPAC region); MCI WorldCom comments at 12 (two NPAs a month per NPAC region); USTA comments at 18, 19 (one NPA a month per NPAC region); Letter from Elridge A. Stafford, US West, to Magalie Roman Salas, FCC, dated March 9, 2000 (two NPAs per quarter per region).

382 *See* Ameritech comments at 38, 44; BellSouth comments at 22; GTE comments at 44.

pooling will be implemented in an NPA in which they provide service.[383]

161. Although we will not commence national thousands-block number pooling implementation until we select a thousands-block number Pooling Administrator, we seek to give carriers and states notice of how the national rollout will be conducted. We will establish a national rollout schedule that will be divided in three-month segments, with the first round of implementation beginning nine months after the selection of a pooling administrator.[384] The schedule for each quarter will contain three NPAs from each of the seven NPAC regions that are within the largest 100 MSAs.[385] Thus, we anticipate that at least twenty-one NPAs will be pooled each quarter.[386] Our determination of which NPAs should be placed on the initial rollout schedule will be based on three categories of NPAs. These categories include: 1) NPAs that were initially pooled or scheduled to be pooled pursuant to our delegations of pooling authority to state commission; 2) jeopardy NPAs in the largest 100 MSAs which have a life of one year or more; 3) new NPAs. Consistent with the findings in our delegation orders that the NPAs targeted by these states will benefit from pooling, we conclude that our rollout schedule should first include NPAs that are pooled or slated to be pooled by state commissions.[387] We also agree with commenters who recommend that the initial rollout schedule should focus on jeopardy NPAs that are within the largest 100 MSAs.[388] We further clarify that in NPAs that are within the largest 100 MSAs that receive an overlay NPA, both the original and overlaid NPAs shall be subject to pooling. However, because NPAs that are created as a result of a geographic split are essentially new NPAs with a geographic identification that is different from that of the original NPA, we do not require, but will permit, new NPAs that result from a geographic split to be pooled at the same time.

162. The initial rollout schedule will also include jeopardy NPAs from within the largest 100 MSAs, along with NPAs from state-ordered pooling trials. Furthermore, we conclude that NPAs that will exhaust in less than a year, based on the most current quarterly forecast issued by the NANPA at the time the quarterly schedule is established, will not be treated as priority NPAs

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383 Maine Commission comments at 21.

384 We will announce each round of implementation by *Public Notice* at least six months prior to the effective date.

385 Additional NPAs in the largest 100 MSAs in a particular LLC region would be eligible for pooling implementation despite the existence of a pooled NPA within that LLC region. Because each NPAC region does not have the same number of large MSAs, we will, at a later date, modify our rollout plan per NPAC region to ensure that the NPAs in the largest MSAs are pooled first.

386 This would mean that 84 NPAs would be pooled annually.

387 *See California Delegation Order,* 14 FCC Rcd at 17490-96; *Connecticut Delegation Order* at ¶¶ 12-24; *Florida Delegation Order,* 14 FCC Rcd at 17510-16; *Maine Delegation Order,* 14 FCC Rcd at 16451-57; *Massachusetts Delegation Order,* 14 FCC Rcd at 17451-57; *New Hampshire Delegation Order* at ¶¶ 24-34; *New York Delegation Order,* 14 FCC Rcd at 17470-76; *Ohio Delegation Order* at ¶¶ 27-39; *Texas Delegation Order* at ¶¶ 11-23; *Wisconsin Delegation Order* at ¶¶ 32-44.

388 Cox comments at 15; MediaOne comments at 23; Nextel comments at 19; PrimeCo comments at 7.

for pooling purposes.[389] We find that the benefit of the limited life extension of the NPA that may be achieved by implementing pooling in NPAs with only a small number of NXXs still available would not likely exceed the costs.[390] We, however, reject the other parameters for the exhaust projection or life extension of an NPA, as suggested by some parties[391] because we conclude that these parameters are not realistic, given the magnitude of area code exhaust occurring throughout the nation, as evidenced by the fact that approximately 23 percent of the total number of NPAs nationwide are in jeopardy.[392] Moreover, we believe that the cost savings from delaying area code relief for even just two years, as in the 847 NPA in Illinois, wherein pooling extended the life of the NPA from 18 months to three and a half years, represents a substantial benefit to consumers, businesses, and state commissions.[393]

163. Furthermore, we are sensitive to concerns that a national pooling framework will not provide states with the flexibility to delay the implementation of pooling in NPAs within their states.[394] Therefore, we will permit states to choose to opt out of the rollout schedule on a temporary basis by informing the Pooling Administrator of their decision three months prior to the rollout date.[395] The choice to opt out must be made on an NPA-wide basis. We emphasize, however, that a state does not have the option to opt out of our requirement to conform to the standards of the national program in the operation of an ongoing pooling trial.

164. In addition, to serve the needs of states outside of the top 100 MSAs which believe that pooling would be beneficial in an NPA within their state, we will consider petitions to opt in to the national pooling rollout schedule.[396] We will accommodate such requests, however, in instances where space is available on the schedule due to an opening created by a state's opting out, or in demonstrated special circumstances, if the Pooling Administrator can accommodate the request in addition to the twenty-one scheduled implementations. Similar to our requirements for

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389 AT&T comments at 42, 44.

390 AT&T comments at 43; SBC reply comments at 17.

391 U S West comments at 21 (three-year exhaust projection); SBC reply comments at 17 (two-year exhaust projection and three to five year life extension achieved); GTE comments at 40 (5 year life extension achieved).

392 Currently, 72 of the 317 total NPAs in the United States are in jeopardy. This information was compiled based on data from the following Internet cites: <http://www.nanpa.com>; <http://www.lincmad.com>; and <http://www.census.gov>.

393 *See* Ganek, *Leveraging LNP*, Telephony, February 7, 2000.

394 Ad Hoc comments at 5; Connecticut Commission comments at 5; Maine Commission comments at 22; Massachusetts Commission comments at 12; New Hampshire Commission comments at 15; Ohio Commission comments at 30.

395 Nextlink, however, argues that states should be required to petition for a waiver to opt out. *See* Nextlink comments at 10. We see no need to impose such an onerous requirement in this instance, given the large number of states that are eager to commence pooling in NPAs in their state.

396 *See* Citizens Util. Bd. *et al.* comments at 11; Connecticut Commission comments at 5; Maine Commission comments at 19; New York Commission comments at 13; Small Business Alliance comments at 10.

a state to justify its request for pooling authority prior to the implementation of national pooling, a state choosing to opt in must demonstrate that: 1) an NPA in its state is in jeopardy, 2) the NPA in question has a remaining a life span of at least a year, and 3) the majority of wireline carriers in the NPA are LNP-capable.[397] We will also consider state requests to opt into the national pooling rollout schedule where a state demonstrates special circumstances. We decline to determine at this time what such "special circumstances" may include, but will consider such requests on a case-by-case basis. The decision to opt in would only be on an NPA-wide basis. Although some parties oppose the ability of states that are not in the largest 100 MSAs to opt in to our initial rollout schedule for thousands-block pooling, we conclude that such flexibility is necessary in light of the diverse numbering conditions present in each state.[398]

165. To permit a greater level of state participation in the choice of the NPAs which will be pooled,[399] we will also permit state commissions to substitute the NPA listed in the rollout schedule with an alternative NPA, as long as the substitute NPA has a life span of at least one year and is located within one of the top 100 MSAs. To exercise this option, the state must inform the thousands-block number Pooling Administrator within 15 days of the release of the roll out schedule for that quarter. We will not depart, however, from our default deployment schedule based on the largest 100 MSAs to accommodate jeopardy NPAs outside the largest 100 MSAs, as some commenters argue we should.[400] We believe that the greater demand for numbering resources from competitive forces within the top 100 MSAs persuades us to focus the thousands-block number Pooling Administrator's limited resources on these areas first, before moving on to areas outside the top 100 MSAs. We believe these provisions will provide an adequate degree of flexibility in our national thousands-block pooling plan.

166. We also require the thousands-block number Pooling Administrator, once selected, to establish the initial rollout schedule and submit it to the Common Carrier Bureau for approval within 60 days after being selected. Pursuant to this task, the selected Pooling Administrator must, as an initial task upon its appointment, identify the largest 100 MSAs within each NPAC region, note the pooling trials initiated pursuant to delegated authority from the Commission, and identify the jeopardy NPAs, by NPAC region, which are scheduled to exhaust within one year. Moreover, the Pooling Administrator shall submit to the Common Carrier Bureau the roll out schedule for each subsequent quarter at least 90 days prior to the effective date of that schedule.

b. Implementation Timeframe

167. In the *Notice* we recognized that the time needed to implement thousands-block

[397] Some parties support the opt in approach for these states provided a lengthy analysis is not required. *See* North Carolina Commission comments at 13; Small Business Alliance comments at 10; Citizens Util. Bd. *et al.* comments at 7, 28; Maine Commission comments at 22.

[398] ALTS comments at 24.

[399] SBC comments at 73, 85-86; MCI WorldCom comments at 13-14.

[400] Nextel comments at 19; MediaOne comments at 23. In many instances, the lack of LNP-capability in these areas would prevent the establishment of an effective thousands-block number pool.

number pooling is dependent on a number of variables, including the extent of LNP deployment, the provisioning method chosen, compatibility of service providers, operational support systems, selection of a Pooling Administrator, the need for enhancements to switches, SCPs, and other service provider systems, and availability of necessary hardware and software changes from vendors. We identified the specific pooling administration tasks that needed to be completed, including the development of Pooling Administration guidelines, selection of a Pooling Administrator, and development by the Pooling Administrator of an automated system for allocation of pooled number resources, built according to industry-supplied specifications and requirements. We further discussed the technical tasks required to implement thousands-block number pooling, which include the selection of a pooling deployment method, development and deployment of enhancements to the NPAC SMS to accommodate pooling, development of switch requirements, and system testing. Lastly, we listed the tasks that service providers, together with equipment vendors, must accomplish to achieve thousands-block number pooling. These tasks include modifications to service provider LSMSs and SCPs, enhancements to Service Order Administration systems (SOAs) and operations support systems; enhancements to switches, and subsequent testing. We also sought comment on the NANC Report's estimate that thousands-block number pooling could be implemented within 10 to 19 months from a regulatory order.[401]

168. We observe that a number of key pre-pooling activities, including the deployment of LNP throughout the largest 100 MSAs and the development of the Thousands Block Pooling Guidelines regarding the administration of thousands-block number pooling, have already been completed. Moreover, the NANPA and the NANC have been engaged in an ongoing analysis of current and future numbering needs. In addition, the selected thousands-block number Pooling Administrator for the ongoing state pooling trials, NeuStar, Inc., has announced the activation in July 2000 of LNP software that will facilitate the transfer of large ranges of numbers as a single message through a data formatting method known as Efficient Date Representation (EDR).[402] Although we do not endorse the adoption of this particular software at this time, we believe that the incorporation of EDR in such software is significant because it will reduce the strain on the network from the large volume of number porting that is likely to occur once thousands-block number pooling is implemented nationally. It is also our understanding that other entities could also develop pooling software with this EDR feature. Furthermore, because pooling is already underway in certain NPAs, we believe that a long lead time is not necessary to iron out significant technical issues. Thus, we conclude that the implementation time frame for initiating thousands-block number pooling should be no longer than nine months after the date on which the Pooling Administrator is selected. Although several carriers contend that a longer implementation time

401 *See* NANC Report at § 5.3.3.

402 *See* NeuStar, Response to Frequently Asked Questions Regarding Number Pooling, November 17, 1999, *available at* <http://www.nanpa.com>.

frame is necessary,[403] we find that, because much of the prerequisite work has been done, the shorter time frame is sufficient and appropriate.[404]

2. Delegations of Authority for Pooling to State Commissions

169. To enable consumers to receive the benefits of thousands-block number pooling as soon as feasible, we will continue to grant states authority to implement thousands-block number pooling on an individual basis. Therefore, subsequent to the release of this *Report and Order*, the Common Carrier Bureau will issue its determinations on pending state petitions requesting pooling authority.[405] As indicated in our orders delegating pooling authority to state commissions, the national thousands-block number pooling framework, including the technical standards and pooling administration provisions, will supersede these interim delegations of authority to state commissions.[406] Furthermore, state commissions receiving new delegations of pooling authority from us must conform to the national framework. We agree with commenters who state that uniform standards for thousands-block number pooling are necessary to minimize the confusion and additional expense related to compliance with inconsistent regulatory requirements.[407] We thus seek to maintain uniformity in the implementation of thousands-block number pooling on a nationwide basis. Moreover, our existing delegations of pooling authority to state commissions will continue until national pooling implementation occurs, provided they comply with our national pooling framework. We recognize, however, that pooling trials already underway may not conform to the standards set forth herein, and therefore, we give state commissions until September 1, 2000, at the latest, to bring their pooling trials into conformity with the national framework set forth herein.

170. Similar to the procedure employed in our delegations of authority to implement number conservation measures, including thousands-block number pooling, states seeking such authority must individually petition us for such authority. We also continue our delegation of authority to the Common Carrier Bureau to rule on such petitions for additional delegation of

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403 Bell Atlantic comments at 25 (16 months plus one year for all carriers)); U S West comments at 22 (18 months); Ameritech comments at 42, 43 (18 months); USTA comments at 8 (19 months); BellSouth reply comments at 12 (27 months).

404 Several states have received delegated authority to implement thousands-block number pooling. We believe that most, if not all technical issues will be resolved in these trials.

405 As of March 30, 2000, the following states have pending petitions for additional delegated authority to implement number conservation measures before the Common Carrier Bureau: Arizona, Colorado, Georgia, Indiana, Iowa , Kentucky, Missouri, Nebraska, North Carolina, Oregon, Pennsylvania, Tennessee, Utah, Virginia, Washington.

406 *See, e.g., California Delegation Order,* 14 FCC Rcd at 17490-96; *Connecticut Delegation Order* at ¶¶ 12-24; *Florida Delegation Order,* 14 FCC Rcd at 17510-16; *Maine Delegation Order,* 14 FCC Rcd at 16451-57; *Massachusetts Delegation Order,* 14 FCC Rcd at 17451-57; *New Hampshire Delegation Order* at ¶¶ 24-34; *New York Delegation Order,* 14 FCC Rcd at 17470-76; *Ohio Delegation Order* at ¶¶ 27-39; *Texas Delegation Order* at ¶¶ 11-23; *Wisconsin Delegation Order* at ¶¶ 32-44.

407 AT&T comments at 37-40; SBC comments at 80; Nextlink comments at 10.

numbering authority when no new issues are raised.[408] Furthermore, to ensure that pooling is implemented in areas where it has the potential to be most beneficial, we require that states include a showing of specific criteria in their petitions for pooling authority. Each petition must demonstrate that: 1) that an NPA in its state is in jeopardy, 2) the NPA in question has a remaining life span of at least a year,[409] and 3) that NPA is in one of the largest 100 MSAs, or alternatively, the majority of wireline carriers in the NPA are LNP-capable. We, however, recognize that there may be "special circumstances" where pooling would be of benefit in NPAs that do not meet all of the above criteria, and we may, thus, authorize pooling in such an NPA upon a satisfactory showing by the state commission of such circumstances. To the extent that the pending state petitions do not demonstrate that the state possesses the criteria we require for future delegations of pooling authority, the state commission must supplement its existing filing with the Common Carrier Bureau within 30 days of release of this *Report and Order*. Although our national pooling framework implements pooling on an NPA basis within the largest 100 MSAs, we will continue to grant states interim pooling authority in a single MSA in their state. A state may expand pooling to another MSA only after having implemented pooling in the initial MSA and after allowing carriers sufficient time to undertake necessary steps to accommodate thousands-block number pooling, such as modifying databases and upgrading switch software.

171. Consistent with our statements in the delegation orders, we reiterate that, to ensure that consumers are never foreclosed from exercising their choice of carrier because that carrier does not have access to numbering resources, state commissions must take all necessary steps to prepare an NPA relief plan when it seeks to implement a pooling trial in an NPA which is in jeopardy. Area code relief is ultimately a federal question, although we have delegated to states authority to handle these matters. It is our policy that no carriers should be denied numbering resources simply because needed area code relief has not been implemented. A number of carriers have raised concerns in this proceeding that some states may not be developing and implementing area code relief plans in a timely manner. We are troubled by these allegations, and we will closely monitor these situations to ensure that federal numbering policies are followed. We also emphasize that only those carriers that have implemented LNP capability shall be subject to pooling, and a state commission does not have the authority to require LNP capability solely for the purpose of being able to participate in pooling. Moreover, non-LNP capable carriers operating in NPAs that are subject to pooling shall have the same access to numbering resources as they had prior to the implementation of pooling. States implementing pooling must also ensure that they provide carriers with an adequate transition time to implement pooling in their switches and administrative systems. In addition, because our national cost recovery plan cannot become effective until national pooling implementation occurs, states conducting their own pooling trials must develop their own cost recovery scheme for the joint and carrier-specific costs of implementing and administering pooling in the NPA in question. The individual state cost-recovery schemes, however, will transition to the national cost-recovery plan when it becomes effective. As we determined in our delegation orders, states must ensure that the costs of number

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408 *Pennsylvania Numbering Order*, 13 FCC Rcd at 19030-31; *see also Texas Delegation Order* at ¶ 5.

409 *See supra* ¶ 164.

pooling are recovered in a competitively neutral manner, pursuant to section 251(e)(2) of the Act.[410]

3. Thousands-Block Number Pooling Standards

a. Background

172. As we explained above, thousands-block number pooling involves the allocation of blocks of sequential telephone numbers within the same NXX code to different service providers, and possibly different switches, within the same rate center. In the future, allocations will be accomplished via a Pooling Administrator,[411] who coordinates the allocation of thousands blocks to a particular service provider with the NPAC SMS.[412] Under the current system, entire NPA-NXXs (10,000 numbers) are allocated to, and therefore associated with, a given switch or carrier. Thousands-block number pooling requires modifying the association between an NPA-NXX and the service provider for the purpose of routing calls.[413] Once the association between the NPA-NXX code and the service provider is modified for purposes of call routing, an alternative to using the first six digits of the called number to route the call must be found.

173. Since the release of the *Pennsylvania Numbering Order*, the telecommunications industry has developed detailed guidelines governing the technical and administrative functioning of thousands-block number pooling. To implement thousands-block pooling, the industry has proposed employing the Intelligent Network/Advanced Intelligent Network (IN/AIN) system used for LNP.

174. The Committee-T1, sponsored by the Alliance for Telecommunications Industry Solutions (ATIS), has drafted detailed technical requirements (T1S1.6 Thousands-Block Number Pooling Technical Requirements) for thousands-block pooling.[414] The T1S1.6 Thousands-Block Pooling Technical Requirements address number pooling within an existing rate center within an

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410 *See California Delegation Order*, 14 FCC Rcd at 17494-95; *Connecticut Delegation Order* at ¶ 20; *Florida Delegation Order*, 14 FCC Rcd at 17513-14; *Maine Delegation Order*, 14 FCC Rcd at 16456-57; *Massachusetts Delegation Order*, 14 FCC Rcd at 17454-55; *New Hampshire Delegation Order* at ¶ 33; *New York Delegation Order*, 14 FCC Rcd at 17474-75; *Ohio Delegation Order* at ¶ 35; *Texas Delegation Order* at ¶ 19; *Wisconsin Delegation Order* at ¶ 40.

411 *See supra* ¶ 118.

412 *Id.*

413 Historically, geographic numbers are assigned on an NXX code basis and associated with a specific switch and the network address to which the call must be routed is embedded in the first six digits (NPA-NXX) of the called number. With thousands-block number pooling, all 10,000 numbers available in the NXX code are allocated within one rate center, but are allocated to multiple service providers in thousand number blocks, instead of to one particular service provider. Therefore, with thousands-block number pooling, participating carriers share resources from NXX codes rather than receiving an entire NXX code at a time.

414 *See infra* ¶ 181.

NPA, utilizing the LRN method for LNP.[415] The T1S1.6 Thousands-Block Number Pooling Technical Requirements also define the Switching System, Number Portability Database, and other requirements for thousands-block number pooling in LNP-capable wireline networks.[416] Moreover, the T1S1.6 Thousands-Block Number Pooling Technical Requirements describe the network prerequisites that must be met for thousands-block number pooling to function properly,[417] thousands-block number pooling technical requirements, and network impacts of thousands-block number pooling.[418]

175. As stated above, an LRN is a unique ten-digit number assigned to each central office switch to identify each Point of Interconnection in the network for call routing purposes.[419] The LRN then serves as a network address. The first six digits of the LRN (*i.e.*, the NPA-NXX) are used to route calls to numbers that have been ported.[420] A number is ported when a carrier other than the carrier assigned the NPA-NXX associates its LRN with the phone number for routing purposes, and this same carrier is responsible for terminating the call to the ported number. When an individual telephone number is ported, a record associating the ported number with the LRN of the appropriate service provider's switch is created and stored in the former carrier's LNP SCP database, via downloads from the local Service Management System (SMS).[421] Any service provider routing a call to the ported number would do so by querying the database to determine the LRN that corresponds to the dialed telephone number, and routing the call to the switch identified by that LRN. The LRN architecture, therefore, provides a practical alternative to using the first six digits of the called number to route the call.[422]

176. The LRN database structure can be used to route calls to customers who have

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415 *See* T1S1.6 Thousands-Block Number Pooling Technical Requirements at 1.

416 *Id.* at i.

417 *See id.* at 2-3.

418 *See generally* T1S1.6 Thousands-Block Number Pooling Technical Requirements.

419 *See generally* ATIS INC Location Routing Number Assignment Practices at 2 (July 13, 1998). INC documents are available at <http://www.atis.org>. The INC, sponsored by ATIS, has detailed the criteria to be considered when a service provider selects and assigns an LRN. *Id. See also* Telephone Number Portability, *Second Report and Order*, 12 FCC Rcd at 12287.

420 ATIS INC Location Routing Number Assignment Practices at 2 (July 13, 1998). As discussed above, telephone numbers in the United States are composed of a 3-digit numbering plan area code (NPA), a 3-digit central office code (NXX), and a 4-digit line number.

421 An SMS is a database or computer system not part of the public switched network that, among other things: (1) interconnects to an SCP and sends to that SCP the information and call processing instructions needed for a network switch to process and complete a telephone call; and (2) provides telecommunications carriers with the capability of entering and storing data regarding the processing and completing of a telephone call. *Telephone Number Portability First Report and Order*, 11 FCC Rcd at 8402 n.288. Typically, the information contained in an SCP is obtained from the SMS. *Id.*

422 *See* INC Number Pooling Report at § 5.1.

been assigned telephone numbers from a pool, because, just like with ported numbers, the NPA-NXX of a pooled number no longer necessarily indicates the switch or service provider associated with the service. To facilitate call routing when LRN LNP is utilized for number pooling, the entire population of pooled numbers in the pooling area, and associated LRNs, must be stored in all of the LNP SCP databases that service providers use to store LRN information for numbers ported from their networks.[423] Thus, thousands-block number pooling can only be implemented where LRN LNP has been deployed.

177. When a number is ported, carriers must utilize software in the NPAC system to download and store the telephone number and associated LRN. Thousands-block number pooling can be performed with NPAC Release 1.4, 2.0 or 3.0.[424] NPAC Release 1.4 is a customized software release for the Illinois pooling trial,[425] which stores data in carriers' SCP database one record at a time.[426] NPAC Release 3.0, which is scheduled for testing by the NPAC in June 2000, and will be released to service providers in July 2000, includes efficient data representation (EDR).[427] EDR allows an LRN to be associated with a block of one thousand numbers as a single record. Because EDR allows one thousand numbers to be downloaded and stored in a service provider's database as a single record, instead of one-thousand records, it is expected to significantly extend a carrier's SCP capacity for thousands-block number pooling.

178. In the *Notice*, we sought comment on whether we should adopt the T1S1.6 proposed technical requirements for thousands-block number pooling as the standard for a national pooling architecture, or in the alternative, whether we should direct the NANC to recommend technical standards for thousands-block number pooling once such standards have been adopted by the American National Standards Institute (ANSI).[428] In addition, we sought comment on whether there are any technical issues with respect to thousands-block number pooling that have not been identified, such as potential impacts on private branch exchange equipment, or that remain to be resolved, and whether it is necessary for the Commission to direct

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423 *See* NANC Report at § 5.6.1; s*ee also* INC Number Pooling Report at § 5.3.

424 NeuStar, Response to Frequently Asked Questions Regarding Number Pooling, November 17, 1999, *available at* <http://www.nanpa.com>.

425 NPAC Release 1.4 was specifically designed for the Mid-West Regional LLC's use in the 847 area code in Chicago, Illinois. Currently, Release 2.0 (with NPAC Release 1.4 capability) is available throughout the United States. *See* NeuStar, Response to Frequently Asked Questions Regarding Number Pooling, November 17, 1999, *available at* <http://www.nanpa.com>.

426 NeuStar, Response to Frequently Asked Questions Regarding Number Pooling, November 17, 1999, *available at* <http://www.nanpa.com>.

427 According to NANPA, NPAC Release 3.0 has been authorized for use in all seven LLCs. *See* NeuStar, Response to Frequently Asked Questions Regarding Number Pooling, November 17, 1999, *available at* <http://www.nanpa.com>.

428 *Notice*, 14 FCC Rcd at 10400.

or request resolution of these issues.[429]

179. The INC has also drafted guidelines relating to the duties of the Pooling Administrator and entities requesting numbers from the Pooling Administrator.[430] The INC Pooling Guidelines propose an architecture in which a Pooling Administrator functions essentially as another carrier, requesting numbering resources from the NANP in order to maintain a sufficient inventory of thousands blocks for allocation to carriers within a rate area.[431] Carriers desiring blocks of numbers within a rate area request those blocks from the Pooling Administrator, rather than the NANPA.[432] Under these guidelines, numbering resources will be available for assignment from both contaminated and uncontaminated thousands blocks contained in the industry inventory pool.[433] Where thousands-block pooling has not been implemented, or is not in use by a service provider, the service provider must continue to apply directly to the CO Code Administrator for numbering resources.[434]

180. In the *Notice*, we sought comment on whether this arrangement should be the model for thousands-block number pooling administration.[435] We also sought comment on whether this general method of administration satisfies parties that may be taking numbers in thousands blocks from a pool as well as those that continue to take whole NXXs. In particular, we asked whether this model sufficiently addresses concerns about the impartial administration of the numbering resource.[436]

b. Discussion

181. As we stated earlier, we believe that uniform technical requirements are essential for the successful rollout of thousands-block number pooling. In this regard, several parties recommend that we adopt the T1S1.6 Technical Requirements for Thousands-Block Number Pooling.[437] The T1S1.6 Technical Requirements provide a comprehensive and an informative reference of the technical requirements for thousands-block number pooling implementation in LNP-capable wireline networks. These requirements are the result of an extensive industry effort

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429 *Id.*

430 *See* Thousand Block Pooling Guidelines § 1.0.

431 *Id.* at §§ 5.0, 8.0.

432 *Id.* at §§ 5.3(a), 9.0.

433 *Id.* at § 3.1.

434 *See id.* at § 1.0. *See also*, CO Code Assignment Guidelines. Service providers requiring an entire NXX code (10,000 consecutive numbers) to satisfy a single customer request would obtain these numbers from the Pooling Administrator, not the CO Code Administrator. Thousand Block Pooling Guidelines at § 3.2.

435 *Notice*, 14 FCC Rcd at 10401.

436 *Id.* at 10401-02.

437 *See* PrimeCo comments at 8; AT&T comments at 49; OPASTCO comments at 7; USTA comments at 10.

and represent a broad-based consensus of various industry segments. Therefore, we adopt the T1S1.6 Technical Requirements as the technical standard for a national thousands-block number pooling mechanism.

182. We agree with many service providers and the NANC that the inclusion of EDR in the pooling software used for thousands-block number pooling is critical for a nationwide pooling architecture.[438] Thousands-block number pooling requires carriers to modify significantly the manner in which they account for their inventory of telephone numbers, including changing their Operations Support Systems (OSSs) and retraining their staff. With a national thousands-block pooling rollout, we envision the porting of a large volume of thousands blocks. As stated above, we do not endorse at this time the adoption of NPAC 3.0 as the software for the national thousands-block number pooling architecture, but we believe that the incorporation of EDR in such software, or in thousands-block number pooling software developed by other entities with this EDR feature, is significant because it will reduce the strain on the network from the large volume of number porting that is likely to occur once thousands-block number pooling is implemented.

183. We also conclude that the nationwide implementation of thousands-block pooling requires detailed guidelines governing its administration. The INC has drafted detailed guidelines and specifications describing the procedures to be followed for the administration of thousand-block number pooling.[439] Several commenters support the INC Thousand Block Pooling Guidelines as the model for thousands-block number pooling administration.[440] Other parties, however, express concern about the industry drafting these guidelines and a possible competitive disadvantage to CLECs based on the premise that they are drafted to favor incumbent LECs.[441] Upon our review of the Thousand Block Pooling Guidelines, we believe that the administration model that the INC has articulated sufficiently addresses concerns about the neutral administration of the numbering resource. We also believe that this model does not discriminate between service providers that may be taking numbers in thousands blocks from a pool as well as those that continue to take whole NXX codes. We note that the INC Pooling Guidelines complement our choice of implementing a nationwide thousands-block number pooling rollout. We therefore

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438 *See* MCI WorldCom reply comments at 14 (stating that software with EDR will be a major advance over NPAC Release 1.4); SBC comments at 79 (noting that it is essential that all carriers implement EDR). *See also* NANC Meeting Minutes, June 23-24, 1998, at 5.

439 The NANC recommended that the INC Thousand Block Pooling Guidelines be followed for the administration of thousands-block number pooling. *See* NANC Recommendation, Thousands Block Pooling Administration, Letter to Chief, Common Carrier Bureau, dated February 25, 2000.

440 *See* AT&T comments at 50; Ameritech comments at 49; BellSouth comments at 8; USTA comments at 10.

441 *See* Cox comments at 14 (stating that the industry position has largely been driven by the ILECs' desire to control numbering resources); MediaOne comments at 24 (generally supporting the draft Thousand Block Pooling Guidelines and their adoption as Commission rules, but concerned with the loss of thousands-blocks deemed lacking sufficient activity under the guidelines); North Carolina Commission comments at 15 (stating that voluntary industry guidelines have proven to be ineffective, in many instances, in giving numbering resource administrators the authority they need to appropriately administer number resources).

direct the industry and the national Pooling Administrator to follow the INC Pooling Guidelines relating to the functioning of the Pooling Administrator and entities requesting numbering resources from the Pooling Administrator.[442] We reserve the right, however, to direct the incorporation of modifications to the Guidelines as and when necessary. In addition, anything that we mandate in this or subsequent orders that alters the Thousand Block Pooling Guidelines, shall supersede the guidelines, and must be followed by the Pooling Administrator.

4. Public Safety Impacts

184. In the *Notice*, we solicited comment on whether the National Emergency Number Association (NENA)-recommended standards, as well as the T1S1.6 recommended restriction on the porting of E911 routing numbers, are sufficient to ensure the reliable provision of E911 service where thousands-block number pooling is implemented.[443] We sought this information because several commenters to the NANC Report expressed concern about thousands-block number pooling's impact on the provision of E911 services, and upgrades and changes to E911 systems if thousands-block number pooling is implemented.[444]

185. In response to comments received from the NENA community regarding the potential problems with implementing thousands-block number pooling in a geographic area beyond the traditional rate center,[445] we conclude that each thousands block pool should be confined to a rate center, which denotes the smallest geographic area used to distinguish rate center boundaries.[446] Thus, each rate center would contain a separate pool of numbering resources. This architecture will allow the maintenance of current wireline call rating mechanisms associating an NXX with a particular geographic area (*i.e.*, rate center).

186. Because thousands-block number pooling will be limited to the traditional rate center area, we do not envision widespread disruption to E911 service in this country. Moreover, we also note that the T1S1.6 did not specifically identify any impact on the provision of E911 service associated with the implementation of thousands-block number pooling in their Technical

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[442] We have considered the amendments to the Thousand Block Pooling Guidelines that were proposed by several states on January 20, 2000, and at this time, decline to adopt them. Therefore, state public utility commissions must follow the provisions of the Thousand Block Pooling Guidelines that we adopt in this *Report and Order*.

[443] *Notice*, 14 FCC Rcd at 10401.

[444] *Id.* at 10400-01. In its Technical Requirements for Number Portability - Switching Systems, T1S1.6 recommends against the porting of routing numbers to which E911 calls are translated. This is because the call-back to a ported number is handled best whenever the call-back is over a dedicated trunk between the Public Safety Answering Point Switch and the originating switch. *See* ATIS T1S1.6 Working Group Technical Requirements for Number Portability - Switching Systems at 48.

[445] *See, e.g.*, NENA comments at 2 (recommending number pooling within the traditional rate center as the approach that is the least disruptive to E911 systems); Illinois NENA reply comments at 2 (explaining that thousands-block number pooling, like LNP, can cause default routing problems if the rate center involves more than one incumbent local service provider).

[446] *See* Thousand Block Pooling Guidelines at § 1.

Requirements for thousands-block number pooling.[447] We do, however, ask that routing numbers to which E911 calls are translated not be ported.[448] If the routing number to which the E-911 calls are translated is ported, we ask that a new 911-routing number be assigned to the recipient switch, if necessary.[449] Therefore, we conclude that the NENA-recommended standards, as well as the T1S1.6 recommended restriction on the porting of E911 routing numbers are sufficient to ensure the reliable provision of E911 service where thousands-block pooling is implemented.

187. Commenters also recommended that NeuStar's Interactive Voice Response (IVR) unit be implemented nationally to address telephone company identification problems.[450] IVR is a system that would enable a PSAP (public service access point) to access the NPAC data, which indicates what company owns each ported telephone number. Because of its potential impact on accessibility to telecommunications services, we decline to address the nationwide implementation of IVR in this *Report and Order*. We do, however, reserve the right to implement this requirement in future proceedings.

5. Administration

a. Inventory of Numbers

188. According to the Thousand Block Pooling Guidelines, the industry inventory is a reservoir of unallocated thousands blocks administered by the Pooling Administrator for purposes of assignment to certified service providers participating in thousands-block number pooling.[451] The service provider inventory is defined as the inventory of all geographic NANP telephone numbers distributed by the thousands-block number Pooling Administrator to a code or block holder and reported as assigned numbers.[452] In the *Notice*, we sought comment on whether a nine-month inventory of numbers in both the industry inventory and the service provider inventory, as proposed in the Thousands Block Pooling Guidelines, is appropriate to assure adequate access to numbering resources, while avoiding potential waste of the resources by permitting numbers to lie unused for long periods of time.[453] According to the Guidelines, the Pooling Administrator would attempt to maintain thousands-blocks in the pool sufficient for a

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447 *See* T1S1.6 Thousands-Block Number Pooling Technical Requirements at § 5.0.

448 *See* ATIS T1S1.6 Working Group Technical Requirements No. 2 for Number Portability – Switching Systems at 49.

449 A routing number is a telephone number used to support routing of E911 calls.

450 APCO and NENA reply comments at 3; Illinois NENA reply comments at 5-6.

451 *See* Thousand Block Pooling Guidelines at § 14.0.

452 *Id.*

453 *Notice*, 14 FCC Rcd at 10405. *See also*, Thousand Block Pooling Guidelines at § 8.0. The CO Code Assignment Certification Worksheet-TN Level (Months-to-Exhaust) requests data on telephone numbers available for assignment, growth history for the past 6 months, and projected demand for the coming 12 months.

nine-month inventory,[454] and each service provider would maintain sufficient resources within its individual inventory to last for nine months.[455]

189. Inventory refers to all telephone numbers distributed, assigned, or allocated to a service provider, or to a Pooling Administrator for the purpose of establishing or maintaining a thousands-block number pool. We believe that a six-month inventory is appropriate and sufficient to assure adequate access to numbering resources, and will reduce the potential waste of unused numbering resources. Several commenters have suggested nonetheless that a nine-month inventory of numbers in both the industry inventory and service provider inventory is appropriate.[456] We are persuaded by this aspect of the states' proposed modifications to the INC Thousand Block Pooling Guidelines and, therefore, adopt a six-month inventory of numbers in both the industry inventory and service provider inventory. Many state public utility commissions have also taken steps in the context of state number pooling trials to avoid potential waste of numbering resources by requiring a maximum six-month inventory of numbers in both the industry inventory and service provider inventory. We also are persuaded by NeuStar's representation that as the thousands-block Pooling Administrator in the state thousands-block number pooling trials, it could maintain a six-month inventory of numbers in each pool.[457]

b. Donation of Thousands-Blocks

190. As discussed in the *Notice*, the NANC Report and the INC Thousand Block Pooling Guidelines contemplate the donation of thousands-blocks already assigned to a service provider to the pool.[458] Both the NANC Report and INC Number Pooling Report recommend that carriers donate thousands-blocks with up to a ten percent threshold contamination level to a

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[454] According to the Thousand Block Pooling Guidelines, the quantity of the thousands blocks in the industry inventory pool should be determined by the Pooling Administrator based upon: "(a) the number of SPs [Service Providers] participating in a given rate area; (b) the individual forecasts provided by each of the thousand block pooling participants; (c) the anticipated rate of assignment of the thousand blocks within the industry inventory pool; and (d) a minimum inventory of at least six months in the industry inventory pool at all times." *See* Thousand Block Pooling Guidelines at § 8.0.

[455] *See* Thousand Block Pooling Guidelines at § 9.3.4.

[456] *See* Ameritech comments at 49 (stating that a nine-month inventory of numbers struck the proper balance between having a sufficient inventory of numbers to operate and waste of the numbering resource); AT&T comments at 53 (stating that carriers require at a minimum a six-month inventory of numbers to operate efficiently, and that a nine-month inventory could be reduced after carriers and the Pooling Administrator have more experience with the pooling process). *But see*, SBC comments at 80 (stating that a six-month inventory of numbers in both the industry inventory and service provider inventory is appropriate); Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM at 15 (recommending a six-month inventory of numbers currently required under the guidelines for jeopardy situations).

[457] Letter from Leonard S. Sawicki, NeuStar, to Magalie Roman Salas, FCC, dated December 21, 1999.

[458] *See* NANC Report at § 5.7.3; *see also* Thousand Block Pooling Guidelines at §§ 4.1, 8.2.4-8.2.8. Whereas donation refers to the process by which carriers are required to contribute telephone numbers to the thousands-block number pool, reclamation refers to the process by which service providers are required to return numbering resources to the NANPA or Pooling Administrator.

pool within a rate center.[459] Contamination occurs when at least one telephone number is not available for assignment. In the *Notice*, we asked whether setting a ten percent contamination threshold would harm a particular segment of the industry.[460] We also sought comment on MediaOne's proposal to set a twenty-five percent contamination threshold for ILECs and a ten percent threshold for CLECs to compensate for the perceived competitive advantage in favor of ILECs because of the ILECs' numbering resources resulting from their historical monopoly status.[461]

191. We conclude that we should adopt a uniform contamination threshold for all carriers to avoid a discriminatory impact on any particular segment of the telecommunications industry.[462] We decline to adopt the recommendations made by MediaOne and other carriers that different contamination thresholds should apply for each industry segment because of the potential competitive impact of such unequal treatment.[463] We also find that donation of thousand-blocks with up to a ten percent contamination threshold has the potential to add significant numbering resources in areas where thousands-block number pooling has been implemented.[464] Thus, consistent with the INC Thousand Block Pooling Guidelines, we require all carriers to donate all thousands-blocks that have a less than ten-percent contamination level to the thousands-block number pool for the rate center from which the numbering resources are assigned.[465] We clarify, however, that carriers participating in thousands-block number pooling will be allowed to retain at least one thousands-block per rate center, even if the thousands-block is less than ten percent contaminated, as an initial block or "footprint" block so that it may provide service to its

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459 *See* NANC Report at § 5.7.3; Thousand Block Pooling Guidelines at §§ 4.1, 8.2.4-8.2.8. A "contaminated block" of numbers, in relation to thousands-block number pooling, refers to a block of 1,000 numbers, in which at least one telephone number is not "available" for assignment (*i.e.*, encompassing the categories of *assigned*, *aging*, *administrative*, *reserved*, and *intermediate*).

460 *Notice*, 14 FCC Rcd at 10403.

461 *Id.* at 10404. *See also* MediaOne comments at 23-24.

462 *See, e.g.*, USTA comments at 10 (stating that contamination levels must be consistent for the various industry segments, otherwise any contamination level would be discriminatory).

463 *See, e.g.*, RCN comments at 14 (stating that the contamination level for ILECs should be greater than the threshold imposed on CLECs to ensure that both classes of carriers are affected while still allowing for competitive growth). *But see* AT&T comments at 44 (arguing that carriers recommending higher contamination levels fail to take into account that more highly contaminated blocks would require significantly more administrative effort). In their comments, several state pubic utility commissions also agreed with a ten percent contamination level but emphasized that states should be given the flexibility of increasing this threshold depending on circumstances particular to that state. *See* California Commission comments at 35; Texas Commission comments at 37; Maine Commission comments at 25; Massachusetts Commission, Attachment A, Outline of State Response to Numbering NPRM at 15.

464 *Notice*, 14 FCC Rcd at 10403.

465 The Thousand Block Pooling Guidelines dictate the various responsibilities of the Block Holder and the Pooling Administrator with respect to the reclamation and return of thousands blocks under a thousands-block number pooling arrangement. *See* Thousand Block Pooling Guidelines §§ 4.1, 8.2.4-8.2.8, 10.0.

customers within the rate center. Carriers will also be allowed to retain a sufficient number of thousands-blocks to meet its six-month projection forecast. We also clarify that numbers assigned to customers from donated thousands-blocks that are contaminated will be ported back to the donating carrier to enable it to continue to provide service to those customers.

6. Federal Cost Recovery Mechanism

192. Section 251(e)(2) requires that "[t]he cost of establishing telecommunications numbering administration arrangements and number portability shall be borne by all telecommunications carriers on a competitively neutral basis as determined by the Commission."[466] Based on our conclusion in the *Notice* that thousands-block number pooling is a numbering administration function that is subject to the Commission's authority under section 251(e)(2), we sought comment on the appropriate distribution and recovery mechanism for thousands-block number pooling costs.[467]

193. In this *Report and Order*, we adopt cost recovery principles that are similar to those established for number portability.[468] We conclude that the technical requirements of thousands-block number pooling and number portability are very similar, and thus, adopting different methods of cost recovery would create an unnecessary administrative burden on the carriers and the numbering administrator. For example, both number portability and thousands-block number pooling require the administrative services of a neutral third party to maintain the databases. Also, the thousands-block number Pooling Administrator will require updates from the number portability databases. In addition, the modifications to a carrier's network that are

[466] 47 U.S.C. § 251(e)(2).

[467] *Notice*, 14 FCC Rcd at 10405-06.

[468] Many parties recommend that we follow the cost recovery approach we adopted in the number portability proceeding. *See* Ameritech comments at 51; AT&T comments at 54-55; Bell Atlantic comments at 33-34; BellSouth comments at 25; MCI WorldCom comments at 53; Qwest Communications comments at 10-12; U S WEST comments at 25-26. In the *LNP Third Report and Order* and *Cost Classification Order*, we established rules governing long-term number portability cost recovery. Telephone Number Portability, *Third Report and Order*, 13 FCC Rcd 11701 (1998) (*Telephone Number Portability Third Report and Order*); Telephone Number Portability Cost Classification Proceeding, *Memorandum Opinion and Order*, 13 FCC Rcd 24495 (1998) (*Cost Classification Order*). We concluded that section 251(e)(2) authorizes the Commission to ensure that carriers bear the costs of providing long-term number portability on a competitively neutral basis for both interstate and intrastate calls. *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11719; *Cost Classification Order*, 13 FCC Rcd at 24496. We further concluded that an exclusively federal recovery mechanism for long-term number portability will enable the Commission to satisfy most directly its competitive neutrality mandate and will minimize the administrative and enforcement difficulties that might arise were jurisdiction over number portability divided. Under the exclusively federal cost recovery mechanism, the number portability costs incurred by incumbent LECs are not subject to jurisdictional separations. *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11719. In the *Telephone Number Portability Third Report and Order*, we further concluded that the costs of number portability that carriers must bear on a competitively neutral basis include the costs that LECs incur to meet obligations imposed by section 251(b)(2), as well as the costs other telecommunications carriers, such as IXCs and CMRS providers, incur for the industry-wide solution to providing number portability. *Id.* at 11719-20. We also concluded that section 251(e)(2) applies to any distribution of number portability costs among carriers as well as the recovery of those costs by carriers. *Id.* at 11724-25.

necessary to implement thousands-block number pooling will involve the same, or similar hardware and software modifications that were required to implement number portability, thus creating the same or similar types of costs. Moreover, in the *LNP Third Report and Order* we noted that number portability would facilitate thousands-block number pooling to help forestall telephone number exhaust.[469]

194. We establish a competitively neutral federal cost recovery frame work for thousands-block number pooling. In this regard, we adopt three categories of thousands-block number pooling costs and determine how those costs should be allocated in each category. We, however, do not establish a cost recovery mechanism in this *Report and Order* for shared industry and carrier-specific costs directly related to thousands-block number pooling because the record does not contain adequate information regarding the range and magnitude of incremental costs that carriers will incur to implement thousands-block number pooling. Thus, any determination of an appropriate cost recovery mechanism without information regarding the amount and/or magnitude of incremental costs that are associated with thousands-block number pooling implementation would be speculative. For this reason, we also issue a *Further Notice* seeking comment on the shared industry and carrier-specific incremental costs of thousands-block number pooling and cost studies to quantify those incremental costs.

a. Federal/State Jurisdiction

195. In the *Notice*, we concluded that thousands-block number pooling is a numbering administration function and tentatively concluded that section 251(e)(2) of the Communications Act of 1934, as amended, authorizes the Commission to provide an exclusively federal distribution and recovery mechanism for both intrastate and interstate costs of thousands-block number pooling.[470] We further tentatively concluded that under an exclusively federal numbering administration cost recovery mechanism, the incumbent LECs' numbering administration costs, including costs associated with thousands-block number pooling, will not be subject to separations.[471]

196. We conclude that the costs of numbering administration, specifically the costs of thousands-block number pooling, will be recovered through an exclusively federal recovery mechanism. We agree with parties who maintain that the Commission has authority to provide an exclusively federal distribution and recovery mechanism for the intrastate and interstate costs of thousands-block number pooling.[472] We also believe that an exclusively federal cost recovery and distribution mechanism will further the policy goal of ensuring that numbering administration

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469 *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11774.

470 *Notice*, 14 FCC Rcd at 10405.

471 *Id.* at 10406.

472 Ameritech comments at 50; AT&T comments at 53; BellSouth comments at 25; MCI WorldCom comments at 50; New Jersey Commission comments at 7; Qwest comments at 11.

costs are not in conflict with the pro-competitive goals of the Act.[473] In addition, an exclusively federal cost recovery mechanism for thousands-block number pooling will enable the Commission to satisfy most directly its competitively neutral mandate, and will minimize the administrative and enforcement difficulties that might arise if jurisdiction over numbering administration cost recovery were divided. We also note that no party has proposed a methodology which would ensure that numbering administration costs are recovered on a competitively neutral basis when carriers operate under different recovery mechanisms.

197. We also adopt our tentative conclusion that the costs of thousands-block number pooling are not subject to separations under the exclusively federal cost recovery mechanism. As a federal cost recovery mechanism, the costs incurred are interstate costs, so there are no intrastate costs to be allocated to the state jurisdiction. Therefore, we will allow incumbent LECs to recover all their qualifying costs for thousands-block number pooling under the federal cost recovery mechanism we establish. We note, however, that the implementation and administration of national thousands-block number pooling will not be effective immediately. Until national thousands-block number pooling is implemented and a federal cost recovery mechanism authorized, states may use their current cost recovery mechanisms to ensure that the carriers recover the costs of thousands-block number pooling implementation and administration in the meanwhile. Costs incurred by carriers to implement state-mandated thousands-block number pooling are intrastate costs and should be attributed solely to the state jurisdiction.

b. Competitively Neutral Requirement

198. We tentatively concluded in the *Notice* that the plain language of section 251(e)(2) requires that the costs of thousands-block number pooling implementation be borne by all telecommunications carriers on a competitively neutral basis.[474] We sought comment on whether the two-part test we adopted in the number portability proceeding to determine whether carriers should bear the costs of number portability on a competitively neutral basis is applicable to thousands-block number pooling.[475] Specifically, we tentatively concluded that the costs of thousands-block number pooling: (a) should not give one provider an appreciable, incremental cost advantage over another when competing for a specific subscriber; and (b) should not have a disparate effect on competing providers' abilities to earn a normal return.[476]

199. We apply the two-part test we established in the *LNP Third Report and Order* to determine whether the carriers' costs are borne on a competitively neutral basis. In that order, we concluded that section 251(e)(2) requires us to ensure that the costs of number portability do not affect the ability of carriers to compete and to attract subscribers.[477] We applied the "normal

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[473] *See* Ameritech comments at 50; AT&T comments at 53; BellSouth comments at 25; MCI WorldCom comments at 50; New Jersey Commission comments at 7; Qwest comments at 11.

[474] *Id.* at 10406.

[475] *Id.* at 10406-07.

[476] *Id.; see also Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11731-32.

[477] *Id.* at 11732.

return" prong of the test to all carriers, not just carriers that compete for end-user customers.[478] Several commenters support the application of the two-part test to determine whether carriers should bear the costs of thousands-block number pooling,[479] and no party has demonstrated that this test would create an unreasonable or unjust result. Therefore, we conclude that the costs of numbering administration, including thousands-block number pooling, do not affect the ability of carriers to compete. As such, the costs of thousands-block number pooling: (a) should not give one provider an appreciable, incremental cost advantage over another when competing for a specific subscriber; and (b) should not have a disparate effect on competing providers' abilities to earn a normal return. Also, consistent with our position in the *LNP Third Report and Order*, we conclude that section 251(e)(2) does not exclude any class of carriers and that all telecommunications carriers must bear numbering administration costs on a competitively neutral basis.[480]

200. We also conclude that the competitive neutrality requirement does not require the Commission to ensure that carriers recover all of the costs expended for thousands-block number pooling implementation and administration. We note that neither the application of the two-part test to thousands-block number pooling costs nor our interpretation of section 251(e)(2) guarantees any particular return or requires the Commission to guarantee that carriers recover all their thousands-block number pooling costs.[481] Section 251(e)(2) requires that the Commission select a method of cost recovery that ensures that carriers bear the costs on a competitively neutral basis, in comparison with the way other carriers bear the same costs. In the *LNP First Report and Order*, the Commission stated that Congress's competitive neutrality mandate requires the Commission to depart from cost-causation principles when doing so is necessary to ensure "that the costs of number portability borne by each carrier do not affect significantly any carrier's ability to compete with other carriers for customers in the marketplace."[482]

c. Cost Categories

201. In the *Notice*, we sought comment on three categories for recovery of thousands-block number pooling administration costs: (1) shared industry costs, costs incurred by the industry as a whole (including NANP administrator costs, and enhancements to the number portability regional database); (2) carrier-specific costs directly related to thousands-block number pooling implementation (such as enhancements to carriers' SCP, LSMS, SOA, and OSS systems);

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478 *Id.*

479 Ameritech comments at 51; MCI WorldCom comments at 51-52; OPASTCO comments at 6; Qwest comments at 11; USTA reply comments at 19.

480 *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11731. We note that the *Telephone Number Portability First Report and Order* interpreted the term "all telecommunications carriers" in section 251 to include any provider of telecommunications service. *Telephone Number Portability First Report and Order*, 11 FCC Rcd at 8419.

481 *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11732-33.

482 *Telephone Number Portability First Report and Order*, 11 FCC Rcd at 8419.

and (3) carrier-specific costs not directly related to thousands-block number pooling administration.[483] The NANC also identified these cost categories as appropriate for thousands-block number pooling costs in its report.[484] In addition, we tentatively concluded that section 251(e)(2)'s competitively neutral requirement applies only to the allocation and recovery of shared industry costs and carrier-specific costs directly related to the implementation of thousands-block number pooling, not to carrier-specific costs not directly related to thousands-block number pooling.[485] Further, we sought comment on the tentative conclusion that because costs not directly related to providing thousands-block number pooling are not costs of thousands-block number pooling implementation, the Commission is not required to create special provisions for their recovery.[486]

202. Furthermore, in the *LNP Third Report and Order*, we established definitions for the three cost categories described above as they applied to number portability cost recovery. We defined shared costs as "costs incurred by the industry as a whole, such as those incurred by the third-party administrator to build, operate, and maintain the databases needed to provide number portability."[487] Carrier-specific costs directly related to providing number portability were defined as costs carriers incur specifically in the provision of number portability services, such as for the querying of calls and the porting of telephone numbers from one carrier to another and considered, as subject to the competitive neutrality mandate of section 251(e)(2), all of a carrier's dedicated number portability costs, such as for number portability software and for the SCPs, and STPs reserved exclusively for number portability.[488] We also defined carrier-specific costs directly related to the provision of number portability as that portion of a carrier's joint costs that is demonstrably an incremental cost that carriers incur in the provision of long-term number portability.[489] Costs that carriers incur as an incidental consequence of number portability (Type 3), such as general network upgrades, were included in the definition of costs not directly related to the provision of number portability.[490]

203. We adopt the three categories of thousands-block numbering pooling costs that we proposed in the *Notice*. We note commenters generally support the adoption of these the three

483 *Notice*, 14 FCC Rcd at 10407.

484 *See* NANC Report at §§ 5.3.2.4, 5.3.2.7 – 5.3.2.11, 5.3.2.13, 5.3.2.17, 5.6.1, 5.6.3 – 5.6.4.

485 *Notice*, 14 FCC Rcd at 10408.

486 *Id.*

487 *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11739.

488 *Id.* at 11740.

489 *Id.*

490 *Id.*

categories, but disagree as to the categories of costs the carriers should be allowed to recover.[491] We find that the similarities between the costs that will be incurred to implement thousands-block number pooling and the costs that have been identified for number portability compel us to adopt the same three cost categories, and apply their definitions to the costs of thousands-block number pooling.

204. We agree with US West and conclude that the costs resulting from the administration of thousands-block number pooling, specifically the costs incurred by the third party thousands-block number Pooling Administrator to build, operate and administer the database for thousands-block number pooling are shared industry costs.[492] Furthermore, as we decided with regard to number portability, we conclude that these costs will become carrier-specific costs once they are distributed among telecommunications carriers.[493] The method of allocating and recovering shared industry costs is discussed in detail below.[494]

205. We further conclude that it is competitively neutral for carriers to recover the shared industry costs and carrier-specific costs directly related to thousands-block number pooling implementation. Finally, we adopt our tentative conclusion that carriers may not recover costs not directly related to providing thousands-block number pooling because these costs are not subject to the competitive neutrality requirement.[495]

d. Allocation of Costs

206. *Shared Industry Costs*. We tentatively concluded in the *Notice* that the shared industry costs of thousands-block number pooling implementation and administration are should be allocated and recovered through the existing NANPA fund formula.[496] We also tentatively concluded that under section 251(e)(2), it is competitively neutral to allocate the shared industry costs of thousands-block number pooling implementation and administration among all telecommunications carriers in proportion to each carrier's intrastate, interstate, and international end-user telecommunications revenues.[497] The *Notice* further sought comment on whether the

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[491] Ameritech comments at 51; AT&T comments at 55; BellSouth comments at 25; MCI WorldCom comments at 52; MCI WorldCom reply comments at 28-29; New York Commission comments at 12; SBC comments at 90; U S West comments at 28.

[492] U S West comments at 29.

[493] *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11739. *See* U S West comments at 29.

[494] *See infra* ¶ 207.

[495] *See* New York Commission comments at 12.

[496] *Notice*, 14 FCC Rcd at 10408; *see also* 47 C.F.R. § 51.17 (all telecommunications carriers in the United States shall contribute on a competitively neutral basis to the costs of numbering administration). The NANPA fund formula represents the contribution factor established to determine the amount of each carrier's contribution, based on the carrier's end user revenues, for NANP administration.

[497] *Notice*, 14 FCC Rcd at 10409.

Commission has the authority to allocate the shared costs of thousands-block number pooling through a per-number charge, based on the quantity of numbers held by a carrier, or only to those carriers that receive thousands-blocks of numbers.[498]

207. We agree with parties stating that the distribution and recovery mechanism for the costs of thousands-block number pooling should be recovered from all classes of telecommunications carriers according to the NANPA formula.[499] We conclude that the allocation of shared industry costs only among the carriers that participate in thousands-block number pooling or through a per-number charge, based on the quantity of numbers held by a carrier, would not comply with the section 251(e)(2) requirement that all telecommunications carriers bear the cost of numbering administration on a competitively neutral basis.[500] In particular, we believe that such a mechanism would penalize new CLECs and other carriers, such as CMRS and paging carriers, that require large quantities of numbers to provide their services.[501] We further conclude that the costs of thousands-block number pooling be allocated to all telecommunications carriers in proportion to each carrier's interstate, intrastate, and international telecommunication end-user revenues. Allocation of thousands-block number pooling costs according to a carrier's interstate, intrastate, and international telecommunication end-user revenues is consistent with the established precedent for cost recovery for NANP administration using the NANPA formula, as well as our cost recovery mechanism for number portability. We recently determined that carrier contributions to NANPA based on end-user telecommunications revenues satisfy the competitive neutrality requirements of section 251(e).[502] In addition, the shared costs for number portability are also collected by a neutral, third-party administrator based on allocations among carriers in proportion to their interstate, intrastate, and international telecommunication end-user revenues attributable to that region.[503] Similar to our number portability cost recovery rules, which require carriers that do not have sufficient end-user revenues to pay $100 per year per region as their statutory share of shared number pooling costs, we require that carriers that do not have sufficient end-user revenues shall pay a minimum of $100 per year per region as their share of thousands-block number pooling costs.[504] The record in this

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498 *Id.*

499 AT&T comments at 53-55; Bell Atlantic comments at 34; BellSouth comments at 25; Joint Comments of ChoiceOne and GST at 7-8; Connect comments at 18; Cox comments at 16-17; MCI WorldCom comments at 54; SBC comments at 66; Texas Commission comments at 28.

500 Ameritech comments at 51; AT&T comments at 58; Bell Atlantic comments at 34; BellSouth comments at 26; MCI WorldCom comments at 54.

501 Ameritech comments at 51; AT&T comments at 58; Bell Atlantic comments at 34; BellSouth comments at 26; MCI WorldCom comments at 54.

502 In the Matter of 1998 Biennial Regulatory Review – Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Services, North American Numbering Plan, Local Number Portability, and Universal Service Support Mechanisms, *Report and Order*, 14 FCC Rcd 16602, 16631 (1999) (*1998 Biennial Review Order*).

503 *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11754.

504 *Id.* at 11759.

proceeding does not provide a reason to depart from our established precedent in this area. Therefore, shared industry costs, along with the other carrier-specific costs directly related to thousands-block number pooling, will be subject to the carrier-specific cost recovery mechanism to be established in a separate order.

208. *Carrier-specific costs directly related to thousands-number pooling.* In the *Notice*, we tentatively concluded that it is competitively neutral for carriers to bear and recover their own carrier-specific costs directly related to thousands-block number pooling implementation and administration.[505] These costs include costs associated with updates to carriers' networks (including LSMS, SCP, SOA, and OSS systems), as well as, each carrier's allocated portion of shared industry costs as discussed above.

209. We conclude that requiring carriers to bear and recover their own carrier-specific costs is consistent with the competitive neutrality requirements in section 251(e)(2). Several parties concur, although there is disagreement as to how the costs should be recovered.[506] We note that none of the parties support the alternative method that would add the carrier-specific costs to the shared industry costs and, then, allocate them through a revenue-based cost mechanism. A similar pooling-type method also was considered in the number portability proceeding,[507] but was rejected because of the following disadvantages: (1) carriers would have less incentive to minimize costs because they would not realize all the savings achieved by providing number portability more efficiently; (2) carriers would not be responsible for any increasing cost inefficiencies; and (3) the Commission would be required to impose significant cost accounting and distribution mechanisms on both regulated and previously unregulated carriers.[508] These disadvantages would also be present if the carrier-specific thousand-block number pooling costs were added to the shared industry costs and allocated according to revenue. Parties to this proceeding have not provided information to show us that this method is competitively neutral; therefore, we adopt our earlier conclusion that it is competitively neutral for carriers to bear and recover their own carrier-specific costs. We will address the issue of carrier-specific thousands-block number pooling cost recovery in detail in a subsequent order, but we establish the basic principles that apply to this category of costs below.

210. *Carrier-specific costs not directly related to thousands-block number pooling.* In the *Notice*, we tentatively concluded that carrier-specific costs not directly related to thousands-block pooling implementation should be borne by individual carriers as network upgrades and, as such, are not subject to the competitive neutrality requirements of section 251(e)(2).[509] We

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505 *Notice*, 14 FCC Rcd. at 10409-10.

506 AT&T comments at 55-56; Connect comments at 18; Cox comments at 16; MCI WordCom comments at 53.

507 *Telephone Number Portability First Report and Order*, 11 FCC Rcd at 8464; *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11764.

508 *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11775-76.

509 *Notice*, 14 FCC Rcd. at 10411.

sought comment on this conclusion and on alternative methods of recovering these costs.[510]

211. We conclude, with support from several parties, that carrier-specific costs not directly related to thousands-block pooling implementation are not subject to the competitive neutrality requirements in section 251(e)(2).[511] Thus, we find that each carrier should bear its carrier-specific costs not directly related to thousands-block number pooling implementation as network upgrades.[512] Commenters agree that carrier-specific costs not directly related to thousands-block pooling are not subject to the competitive neutrality requirements of section 251(e)(2) and carriers should bear those costs as network upgrades. We reached a similar conclusion regarding carrier-specific costs not directly related to number portability in the *LNP Third Report and Order*, recognizing that carriers may incur a wide range of costs to provide telecommunications functions that are only incidentally related to number portability.[513] The *LNP Third Report and Order* defined costs not directly related to number portability as costs carriers incur as an "incidental consequence of number portability."[514] We reject the argument offered by BellSouth and SBC that we should allow carriers to recover all of the implementation costs for thousands-block number pooling in all three cost categories, including costs not directly related to thousands-block number pooling.[515] We find that these costs are only incidentally related to thousands-block number pooling and the parties have not presented evidence to demonstrate that incidental costs of implementing number pooling should be recovered through a separate or special recovery mechanism. As such, we conclude that carriers are not allowed to recover carrier-specific costs not directly related to thousands-block number pooling implementation and administration through the cost recovery mechanism we establish in a separate order.

e. Recovery of Shared Industry and Direct Carrier-Specific Costs

212. In the *Notice*, we tentatively concluded that incumbent LECs subject to rate-of-return or price cap regulation may not recover their interstate carrier-specific costs directly related to thousands-block number pooling through a federal charge assessed on end-users, but may recover the costs through other cost recovery mechanisms.[516] We requested detailed estimates of the costs of thousands-block number pooling and asked that commenters separate the estimates by category of costs.[517] We also sought comment on the appropriate methodology for developing

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510 *Id.*

511 MCI WorldCom comments at 53; New York Commission comments at 12; Texas Commission comments at 29.

512 MCI WorldCom comments at 53; New York Commission comments at 12; Texas Commission comments at 29.

513 *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11724.

514 *Id.* at 11740.

515 BellSouth comments at 25; SBC comments at 88.

516 *Notice*, 14 FCC Rcd at 10410.

517 *Id.* at 10407-08.

these and other cost estimates.[518]

213. Several parties agree with the tentative conclusion that thousands-block number pooling costs should not be recovered through a federal charge assessed on end users, but should be recovered through access charges.[519] Some commenters recommend that price cap LECs should be allowed to treat thousands-block pooling number costs as exogenous cost adjustments or, alternatively, place the costs in a new or existing price cap basket.[520] Other parties, however, urge us to abandon our tentative conclusion because recovery through access charges would violate the competitive neutrality standard of section 251(e)(2).[521]

214. We find that the amount and detail of the data provided in response to our request is insufficient for us to determine the amount and/or magnitude of the costs associated with thousands-block number pooling. Without sufficient cost data, it is difficult for us to determine the appropriate cost recovery mechanism for these costs. We, therefore, find it necessary to request additional cost information prior to making a final decision on the appropriate method of cost recovery. We seek further comment and cost studies that quantify shared industry and direct carrier-specific costs of thousands-block number pooling. We also seek comment and cost studies that take into account the cost savings associated with thousands-block pooling in comparison to the current numbering practices that result in more frequent area code changes.

f. Identification of Costs

215. We believe that the implementation of thousands-block number pooling as a means of preventing number exhaust will result in certain cost efficiencies that do not inure to carriers under other methods (*e.g.*, area code splits and overlays, addition of another digit). We request that carriers determine their potential cost savings resulting from thousands-block number pooling by analyzing the avoided costs associated with thousands-block number pooling in comparison to the current practices that result in more frequent area code changes. The carriers also should include an analysis of the differences between the shared industry costs associated with thousands-block number pooling and the shared industry costs, if any, associated with the current practices that result in more frequent area code changes. The carriers should also exclude any thousands-block number pooling costs that they may have recovered through state implemented cost recovery mechanisms from this analysis. After determining their incremental costs of thousands-block number pooling, carriers should offset these costs by the cost savings that result from thousands-block number pooling which prolongs lives of area codes and avoids frequent area code changes.

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[518] *Id.*

[519] NECA comments at 2; New Hampshire Commission comments at 18; New York Commission comments at 12; Ohio Commission comments at 35.

[520] *See* Cox comments at 17; USTA comments at 11; U S West comments at 34 (stating that ongoing costs of number pooling should be recovered through an ongoing exogenous adjustment).

[521] MCI WorldCom comments at 53.

216. Carriers should provide cost studies that assign costs according to the three categories we have adopted in this order: (1) shared industry costs; (2) carrier-specific costs directly related to thousands-block pooling; and (3) carrier-specific costs not directly related to thousands-block number pooling. The cost studies should also distinguish the costs of providing number portability from the costs of implementing thousands-block number pooling. We find that the need to distinguish thousands-block number pooling costs from other network upgrades and network changes associated with number portability is heightened by the fact that the changes to the network for both thousands-block number pooling and number portability are similar.[522] Specifically, the same carriers that were required to update their networks to accommodate number portability are now required to make similar changes to implement thousands-block number pooling. Moreover, these carriers are also currently recovering number portability costs through a separate, number portability end-user charge. Under these circumstances, we find that it is equally as important to prevent the overrecovery of thousands-block number pooling and number portability costs as it is to prevent the recovery of costs that are not directly related to thousands-block number pooling.

217. We note that there are some types of costs that are incidental to the implementation and administration of thousands-block number pooling, and, therefore, may not be eligible for recovery. In the *Cost Classification Order*, the Bureau directed the LECs to use the "but for" test as a method of identifying eligible number portability costs.[523] To demonstrate that costs are eligible for recovery through the federal number portability charges under the "but for" test, a carrier must show that the costs: "(1) would not have been incurred by the carrier 'but for' the implementation of number portability; *and* (2) were incurred 'for the provision of' number portability service.[524] The Bureau reasoned that, based on the *Third Report and Order* language that only incremental costs of number portability should be recovered through the federal number portability charges, this test was consistent with the Commission's narrow interpretation of "eligible number portability costs."[525] Costs that a carrier incurs for general network upgrades or to adapt other systems to the presence of number portability in the LECs' network were defined as costs not directly related to the provision of number portability.[526] The Bureau's goal was to prevent overcompensation of LECs for the costs of general network upgrades that are already recovered through standard price caps and rate-of-return mechanisms.[527]

218. We find that the "but for" test used in the number portability proceeding should

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[522] According to industry reports, number portability technology has extended the life of the North American Numbering Plan by allowing service providers to transfer and share telephone numbers between each other in blocks of 1,000 rather than 10,000-number blocks. *See* Ganek, *Leveraging LNP*, Telephony, February 7, 2000.

[523] *Cost Classification Order*, 13 FCC Rcd at 24500.

[524] *Id.*

[525] *Id.*

[526] *Id.* at 24501.

[527] *Id.* at 24500.

also be used by carriers to identify carrier-specific costs directly related to thousands-block number pooling implementation and administration. Our goal in this proceeding is similar to the Bureau's goal in structuring the "but for" test to identify eligible costs of number portability—to prevent carriers from overrecovering both their number portability or thousands-block number pooling costs. We adopt, therefore, the two-part "but for" test described above as a method of identifying the costs that are directly related to thousands-block number pooling. Costs that both would not have been incurred by the carrier "but for" the implementation of thousands-block number pooling *and* were incurred "for the provision of" thousands-block number pooling are eligible for recovery and should be identified in the cost studies.

219. We note that in addition to meeting the requirements of the "but for" test, only new costs should be identified in the cost studies as carrier-specific costs directly related to thousands-block number pooling.[528] We find that it is reasonable to bar recovery of costs incurred by incumbent LECs prior to number pooling implementation and conclude that permitting embedded investments to be eligible thousands-block number pooling costs would permit recovery of costs that are already subject to recovery through standard mechanisms. In the number portability proceeding, we classified the carrier-specific costs directly related to number portability into three basic categories: (1) dedicated number portability costs; (2) joint costs of number portability; and, (3) incremental overheads.[529] These categories also apply to thousands-block number pooling costs and will assist carriers in identifying the costs that may be eligible for recovery.

220. *Dedicated Costs.* Dedicated thousands-block number pooling costs are the incremental costs of investments or expenses that are dedicated exclusively to the provision of thousands-block number pooling functions. These costs should be clearly identifiable since no allocation among services is necessary. Shared industry costs should be considered dedicated thousands-block number pooling costs and included in eligible thousands-block number pooling costs. LECs should identify only those costs that are demonstrably incremental costs incurred in the implementation and administration of thousands-block number pooling since existing cost recovery mechanisms already provide for the recovery of embedded costs.

221. *Joint Costs.* Joint costs of thousands-block number pooling are incremental costs associated with new investments or expenses that directly support thousands-block number pooling and also support one or more non-number pooling functions. Our earlier number portability decisions are useful guidance in identifying this category of costs. We concluded in the *LNP Third Report and Order* that an incumbent LEC may treat as directly related to number portability only the "portion of a carrier's joint costs that is demonstrably an incremental cost carriers incur in the provision of long-term number portability."[530] In the *Cost Classification Order*, the Bureau interpreted this language as requiring the LECs to subtract the cost of an item

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528 *Cf. Cost Classification Order*, 13 FCC Rcd at 24502.

529 *See Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11740; *Cost Classification Order*, 13 FCC Rcd at 24504.

530 *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11740.

without the number portability functionality from the total costs of the item with the telephone number portability functionality.[531] We adopt, in the context of thousands-block number pooling, the Bureau's definition of joint costs for number portability and its interpretation of the *Third Report and Order's* requirement that an incumbent LEC may treat as directly related to number portability only the portion of a carrier's joint costs that is demonstrably an incremental cost incurred in the provision of number portability implementation. These costs as they relate to thousands-block number pooling should be included in the cost study.

222. The definition of joint costs that we adopt in this proceeding means that carriers should recognize only a portion of the joint costs of software generics, hardware, and OSS, SS7, or AIN upgrades as carrier-specific costs directly related to thousands-block number pooling. Some of the costs associated with changes to these systems to enable number pooling have already been made by the incumbent LEC during the implementation of number portability, which the LECs are recovering through the number portability charges. Moreover, the additional modifications required to implement thousands-block number pooling may also provide a wide range of services and features that are unrelated to number pooling implementation and that are recoverable by the LECs in their rates for other services. Where an upgrade meets the two-part eligibility test and is not dedicated solely to thousands-block number pooling implementation, the LEC should make a special showing in its cost study to establish the eligible thousands-block number pooling costs associated with the upgrade.

223. *Incremental Overheads.* Many of the same principles discussed above regarding identifying direct and joint costs also apply to eligible overhead costs of thousands-block number pooling. We recognized in the number portability proceeding that LECs may incur overhead costs in conjunction with providing number portability and determined that carriers may recovery only those incremental overheads that they can demonstrate they incurred specifically in the provision of number portability.[532] The same rationale applies to thousands-block number pooling costs. We recognize that there are overhead costs associated with the implementation of thousands-block number pooling as a new function in the LECs' networks. However, only new overhead costs that were incurred specifically in the implementation of thousands-block number pooling should be identified in the cost information LECs provide in response to this request.

224. The carriers should not include embedded overheads or use general overhead factors as part of the cost study. We noted with regard to number portability cost recovery that "[c]arriers already allocate general overhead costs to their rates for other services, and allowing general overhead loading factors . . . might lead to double recovery."[533] This language is instructive in this proceeding. LECs are not precluded, however, from applying *incremental* overhead allocation factors to identify the incremental portion of overhead costs directly related to thousands-block number pooling.

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[531] *Cost Classification Order*, 13 FCC Rcd at 24505.

[532] *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11740.

[533] *Id*. at 24509.

225. Carriers that apply an incremental overhead allocation factor must include a detailed explanation of the method used to calculate the factor as well as the method used to arrive at the estimated overhead amount. In support of the reasonableness of these incremental overhead cost allocations, LECs may be requested to supply to the Commission any special study performed by the LEC, a list of overhead allocation factors used by states in any UNE pricing decision, a list of all overhead allocations used in the LEC's other new service filings during 1998, 1999, and 2000, or three calendar years immediately preceding the LEC's filing, and a list of the incremental overhead factors filed by the LEC for number portability services, if necessary in the course of this proceeding.

226. Dedicated costs are associated with incremental investment exclusively related to thousands-block number pooling. Joint costs are associated with investments used to provide more than one service. As part of their cost study, LECs must provide a worksheet for dedicated and joint costs, as defined in this *Report and Order*, that includes the following information: (a) required thousands-block number pooling function and modification; (b) Part 32 account; (c) gross dollar investment; and (d) the percent assigned to non-number pooling services. LECs should state the methods used to assign that investment, *e.g.*, direct assignment or engineering studies. The thousands-block number pooling functions should include (as reported for each type of service): (a) shared industry costs; (b) service management system (SMS) signalling link; (c) signalling control point (SCP); (d) SCP link; (e) signalling transfer point (STP); (f) STP link; (g) signalling switching point (SSP); (h) end-office switches; (i) tandem switches; (j) operating support system (OSS) modifications for support of the narrowly defined number pooling implementation functions described above; and (k) OSS modifications supporting other functions that the LEC claims are for the implementation and administration of thousands-block number pooling. LECs also should include information in the worksheet that shows the cumulative cost savings resulting from thousands-block number pooling implementation compared to the current practices that result in more frequent area code changes, as well as the cost savings associated with each specific category or function outlined on the worksheet. The worksheet should exclude any costs the LECs may have recovered through state thousands-block number pooling cost recovery mechanisms. Finally, LECs should include other functions or subcategories of information that would assist us in our review of the costs that are being claimed.

V. OTHER POTENTIAL POOLING MECHANISMS

227. Individual telephone number (ITN) pooling and unassigned number porting (UNP) are variations on thousands-block number pooling and involve the allocation of individual telephone numbers within the same NXX to different service providers, and possibly different switches, within the same rate center. Generally, ITN pooling is the same as thousands-block number pooling, only at a more granular level, while UNP is a self-help strategy that allows carriers with numbering resources to make them available to carriers that are short of numbering resources. As with thousands-block number pooling, all 10,000 available numbers in an NXX code are allocated within one rate center, but individual telephone numbers may be allocated to different service providers. With ITN pooling, allocations would be accomplished via a third-party administrator, to coordinate the allocation of individual numbers to a particular service provider with the NPAC. With UNP, however, allocation of individual telephone numbers generally would be accomplished between service providers by using established LNP porting

mechanisms, and would not involve a third-party administrator.

228. In the *Notice*, we tentatively concluded not to pursue ITN pooling at this time because the development of technical standards and administrative guidelines for this methodology are in their early stages.[534] Nevertheless, we recognized that ITN appears to offer the greatest potential for eliminating, or nearly eliminating, "stranded" numbers, and stated our support for further study on its use as a numbering resource optimization measure.[535] Moreover, we also sought comment on the associated costs and benefits of migrating from a thousands-block pooling regime to an ITN pooling regime.[536] With regard to UNP, we sought comment on whether we should allow carriers to port unassigned numbers among themselves, and in particular, whether this practice could result in call-routing problems and public safety concerns.[537] In addition, we sought comment on whether state commissions should make the determination to allow carriers to use UNP in a given area.[538] We further sought comment on whether UNP can be used simultaneously with thousands-block pooling, or whether special conditions must be met for the two measures to coexist.[539]

229. In our orders considering state petitions for delegations of authority to implement ITN and UNP, we declined to grant state commissions the authority to implement these two optimization measures.[540] Our determination in this regard was based on the lack of final technical and administrative standards for both these methodologies and the potential for disruptions in carrier systems.[541]

230. We reiterate our finding that UNP and ITN are not yet sufficiently developed for adoption as nationwide numbering resource optimization measures and conclude that ITN and UNP should not be mandated at this time.[542] We also remain concerned with the impact of UNP

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534 *Notice*, 14 FCC Rcd at 10384. The NANC Report estimated a four to six year implementation timeframe for ITN pooling after the release of a regulatory order. NANC Report at § 4.3.

535 *Id.* at 10412-13.

536 *Id.* at 10413.

537 *Id.* at 10385.

538 *Id.*

539 *Id.* at 10413.

540 *See, e.g. Massachusetts Delegation Order*, 14 FCC Rcd at 17464-65*; Wisconsin Delegation Order* at ¶¶ 26-27.

541 *Id.*

542 *Notice*, 14 FCC Rcd at 10384. *See also Massachusetts Delegation Order*, 14 FCC Rcd at 17464-65. Several commenters, however, disagree and maintain that we should pursue ITN as our principal numbering resource optimization strategy because of its potential to allocate numbers more efficiently than thousands-block number pooling. *See* MediaOne comments at 29; Colorado Commission comments at 4; Small Business Alliance comments at 10; Maine Commission comments at 23; Minnesota Commission comments at 14; Massachusetts Commission comments at 11.

on carriers' ability to control their own number inventories and forecast future numbering needs.[543] We are also concerned with UNP's and ITN's potential impact on companies' switching systems and OSSs mapping logic, if these methodologies lead to significant number porting.[544] Furthermore, we are concerned that implementing UNP now might complicate the effort to move to thousands-block pooling, and carriers' efforts to preserve uncontaminated, or minimally contaminated, blocks of numbers may be undermined.[545] For the aforementioned reasons, we also decline to delegate to state commissions authority to order UNP and ITN in their states.

231. We permit carriers, however, to engage voluntarily in UNP where it is mutually agreeable and where no public safety or network reliability concerns have been identified. Despite arguments raised by parties that even voluntary UNP arrangements will skew utilization forecasting and impact SCP capacity,[546] we conclude that the volume of ported numbers will not likely be high enough to affect carriers' inventories and SCP capacity appreciably. Furthermore, we encourage the states, the National Association of Regulatory Utility Commissioners (NARUC), NANC and INC to continue to study ITN and UNP and forward their recommendations to us by January 1, 2001. We remain interested in the possibility of implementing either of these pooling methodologies as part of the national numbering resource optimization strategy if they are shown to have sufficient promise and feasibility.

VI. OTHER ISSUES

A. Reclamation of Numbering Resources

a. Background

232. The CO Code Assignment Guidelines provide that carriers shall activate NXXs within six months of the "initially published effective date" or the NXXs become subject to reclamation.[547] The NANPA currently recovers NXX blocks pursuant to the requirements set forth in CO Code Assignment Guidelines.[548] As discussed in the *Notice*, the NANC Report notes,

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[543] Ameritech comments at 47; Bell Atlantic comments at 24; CinBell comments at 11; GTE comments at 41-42; Ohio Commission comments at 31; SBC reply comments at 26; WinStar reply comments at 14.

[544] NANC Report at § 6.6.3. UNP and ITN may cause problems with switches that can only accept a limited number of NXX codes, as number inventories will be increasingly composed of random telephone numbers from many different NXX codes. The NANC Report also indicates that many companies' OSSs are designed to accommodate large inventories of telephone numbers, linking each street address to an NPA/NXX combination. *See* NANC Report at § 6.6.4.1. *See also* Nextel comments at 17-19; U S West comments at 16-17; Nextlink reply comments at 13-14; Ameritech comments at 46; AT&T comments at 41, n.92.

[545] WinStar comments at 22; GTE comments at 41; SBC reply comments at 26.

[546] BellSouth comments at 13; AdHoc comments at 10; SBC comments at 92.

[547] *See* CO Code Assignment Guidelines at § 6.3.3 and § 8.0.

[548] Reclamation refers to the process by which service providers are required to return numbering resources to the NANPA or Pooling Administrator. Donation, on the other hand, refers to the process by which carriers are required to contribute telephone numbers to the thousands-block number pool.

however that there has been "some hesitancy" on the part of the NANPA to initiate reclamation of NXXs not activated within the requisite time period, and recommend a current review and modification of the NXX code reclamation procedure to address the current competitive status of the industry.[549] In the *Notice*, we sought comment on several proposals to clarify and strengthen these reclamation procedures.

233. Under the CO Code Assignment Guidelines, an NXX code is considered to be "in service" when the assignee has transmitted local routing information to the LERG.[550] The CO Code Assignment Guidelines require an NXX assignee to activate[551] the NXX code by placing it "in service" within six months of assignment.[552] The carrier, however, does not have to assign and activate any number from the block to end-user customers in order to satisfy the activation requirement.[553] Certification of "in service" status is mandatory through completion of the Central Office Code (NXX) Assignment Request and Confirmation Form - Part 4.[554] Furthermore, an assignee may apply to the NANPA for an extension of up to an additional ninety days to place the NXX code in service.[555] The CO Code Assignment Guidelines also allow an assignee to reserve an NXX code for up to eighteen months.[556] In addition, an assignee of a reserved NXX code is eligible to receive a single six-month extension of the reservation if it is

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549 *Notice*, 14 FCC Rcd at 10363. *See also*, NANC Report at § 11.6.

550 *See* CO Code Assignment Guidelines at § 13.0.

551 A code is activated when it is assigned by the CO Code Administrator and implemented in the PSTN for specific routing and rating requirements as of the LERG effective date. *See* CO Code Assignment Guidelines at § 13.0.

552 *See* CO Code Assignment Guidelines at § 6.3.3. Because it takes 66 days to process a request for an NXX code, the guidelines state that applicants should request effective dates that are at least 66 days after the date of the receipt of the code request. CO Code Assignment Guidelines at § 6.1.2.

553 CO Code Assignment Guidelines at § 6.1.2.

554 CO Code Assignment Guidelines at § 6.3.3. Under the CO Code Assignment Guidelines, carriers are obligated to submit to the NANPA within six months of the requested effective date of newly obtained NXX codes a Part 4 certification that the code has been placed in service. *See* CO Code Assignment Guidelines NXX Assignment Request Form, Part 4. According to the NANPA, when a Part 4 is not received within within six months, the CO Code assignees are notified, by letter, that a Part 4 is due to the CO Code Administrator within six months of assignment of the CO Code. *See* NANPA comments at 7. If the Part 4 certification is not received within two weeks following notification, a registered letter is sent to the service provider requesting a response within 30 days that either confirms activation or returns the NXX code. *Id.*

555 CO Code Assignment Guidelines at § 8.1 and 8.2.3. An extension request of this type must include the reason for the delay and a new activation time commitment. *Id.* at § 8.1. The NANPA may extend the activation deadline if it determines that the reason for non-activation is not within the control of the code assignee. CO Code Assignment Guidelines at § 8.2.3.

556 CO Code Assignment Guidelines at § 4.4. The applicant must demonstrate that the reservation of the code is essential to accommodate technical or planning constraints or pending regulatory approval of a tariff, certification, or registration. *Id.*

able to demonstrate that the proposed code use date was missed due to circumstances beyond its control.[557]

234. The CO Code Assignment Guidelines also contain provisions for NXX block reclamation. The CO Code Assignment Guidelines require the assignee to return an NXX code to the NANPA if it has not been activated within six months of assignment, if the assignee no longer requires that NXX code for the purpose it was originally assigned, or if the service for which it was assigned is disconnected.[558] Moreover, the CO Code Assignment Guidelines direct the NANPA to initiate reclamation action if the NXX code has not been activated within eighteen months.[559] The CO Code Assignment Guidelines direct the NANPA to refer to the INC for resolution in certain instances where NXX codes have not been returned for reassignment by the assignee,[560] as well as certain applications for extension of the NXX code activation date.[561]

235. In the *Notice*, we sought comment on whether the definition of placing an NXX code "in service" should be clarified to mean not just activation of the code through the transmission of local routing information to the LERG, but also that the carrier has begun to activate and assign to end users numbers within the NXX code.[562] We tentatively concluded that modifying the current reclamation provisions by requiring the NANPA to initiate NXX code reclamation within sixty days of expiration of the assignee's applicable activation deadline would limit the length of time that an NXX code has been left idle and encourage better recycling of unused NXX codes.[563] Furthermore, we sought comment on whether we should consider any other modifications to the reclamation provisions to improve their enforceability, such as maintaining firm deadlines for activation by removing the discretion the NANPA currently has to determine the length of an extension.[564] Finally, we sought comment on whether we should direct the INC to incorporate these proposed changes into the CO Code Assignment Guidelines, or

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[557] CO Code Assignment Guidelines at § 4.4.

[558] CO Code Assignment Guidelines at §§ 8.1 and 6.3.3.

[559] CO Code Assignment Guidelines at § 5.2.9. This translates to a one-year gap between the expiration of an NXX assignee's code activation deadline and the commencement of reclamation action by the NANPA.

[560] Specifically, the NANPA is to refer to the INC instances where an NXX code has not been activated within the six-month timeframe, where a previously activated code is not now in use, and where an activated code is not being used in accordance with the guidelines. CO Code Assignment Guidelines at § 8.2.2.

[561] Specifically, the NANPA is to refer to the INC instances where: 1) activation has not occurred within the 90-day extension; 2) the administrator believes that the activation has not occurred due to a reason within the assignee's control; or 3) the assignee requests an extension in excess of 90 days. CO Code Assignment Guidelines at § 8.2.2. When the INC is unable to reach a consensus resolution or the assignee refuses to comply with the resolution, the CO Code Guidelines direct the INC to refer the case to the appropriate regulatory authority. *Id*. at § 8.3.

[562] *Notice*, 14 FCC Rcd at 10365.

[563] *Id.* at 10366.

[564] *Id.*

whether we should adopt these proposals as FCC rules.[565]

236. In addition, we tentatively concluded that we should delegate additional authority to state public utility commissions to order NXX block reclamation in accordance with the CO Code Assignment Guidelines, and any changes thereto adopted during the course of this proceeding.[566] We also sought comment on what, if any additional authority we should delegate to the NANPA to enforce the NXX block reclamation provisions.[567]

b. Discussion

237. We grant authority to the state commissions to investigate and determine whether code holders have "activated" NXXs assigned to them within the time frames specified in this proceeding.[568] Thus, a state commission may request proof from all code holders that NXX codes have been activated and assignment of the numbers has commenced. We further direct the NANPA to abide by the state commission's determination to reclaim an NXX code if the state commission is satisfied that the code holder has not activated the code within the time specified by this *Report and Order*. We believe that this grant of authority may increase the effectiveness of numbering conservation measures adopted by the states.[569] Reclamation and reuse of unused NXX blocks is a numbering optimization measure that may be one of the quickest and easiest measures to implement. Reclaiming NXX codes that are not in use may serve to prolong the life of an area code because these codes are added to the total inventory of assignable NXX codes in the area code. Although most commenters support the reclamation of unused codes,[570] those opposed to it are not necessarily opposed to reclaiming unused codes in general, but rather assert that the NANPA should be responsible for reclamation activities.[571] We believe, however, that state commissions may be able to resolve such issues more quickly and decisively than an industry consensus process. We note that if state commissions do not make decisions on NXX reclamation, the Commission, under its exclusive jurisdiction over numbering, can order the NANPA to be responsible for reclamation activities. In such instances, the NANPA should consult with the Commission before conducting this activity.

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565 *Id.*

566 *Id.*

567 *Id.*

568 *See* Texas Commission comments at 18-19; New York Commission comments at 8. *But see,* Ameritech comments at 26-28 (arguing that specific proposals to add new reclamation guidelines or modify existing ones are best developed through the industry fora process).

569 *Id.*

570 *See, e.g.***,** BellSouth comments at 8; Florida Commission comments at 2; Ohio Commission comments at 24; Small Business Alliance comments at 7; Wisconsin Commission comments at 4.

571 *See, e.g.***,** ALTS comments at 18; Ameritech comments at 27; AT&T comments at 30-31; SBC Comments at 63-64.

238. Similarly, we give the same authority to the states to direct the Pooling Administrator in state pooling trials, as well as the national Pooling Administrator once national thousands-block number pooling has been established, to reclaim unactivated or unused thousands-blocks. If state commissions decline to make decisions on NXX or thousands-block reclamation, the Commission, under its exclusive jurisdiction over numbering, can order the NANPA, or the Pooling Administrator where thousands-block number pooling is in place, to be responsible for reclamation activities. In such instances, the NANPA or the Pooling Administrator should reclaim unused numbering resources in accordance with the reclamation procedures prescribed herein.

239. We clarify that the state commissions need not follow the reclamation procedures set forth in the CO Code Assignment Guidelines relating to referring the issue to the INC, as long as the state commission accords the code holder an opportunity to explain the circumstances causing the delay in activating NXX codes.[572] This authority is consistent with the delegations of authority granted to several state commissions. We believe that the CO Code Assignment Guidelines dictate substantial procedural hurdles prior to reclaiming an unused NXX, in part to afford the code holder an opportunity to explain the circumstances that may have led to a delay in code activation.[573] New entrants, in particular, may suffer unexpected delays or scheduling setbacks beyond their control, which could lead to code activation delays.[574]

240. In addition, we conclude that the definition of placing an NXX code "in service" should be clarified to mean not just activation of the code through transmission of the local routing information to the LERG, but also that the carrier has begun to activate and assign to end users numbers within the NXX code.[575] We find that the current definition of "in service" in the CO Code Assignment Guidelines does not require that the carrier has begun to activate and assign to end users numbers within the NXX code. We believe that this clarification will better ensure that NXX codes are not left idle for a lengthy period.[576] We also note that this clarification will help to ensure that numbers are actually in use and not merely "in service" for an indefinite period

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572 *See, e.g.*, New York Commission comments at 8 (noting that the current CO Code Assignment Guidelines that require referring non-compliance to the INC for resolution is cumbersome and time consuming).

573 For example, the CO Code Assignment Guidelines dictate that the CO Code Administrator must refer to the INC for resolution regarding any matter relating to an NXX code that has not been activated within the timeframe specified in the guidelines. CO Code Assignment Guidelines at § 8.2.2. The INC must then investigate the referral and attempt to resolve the referral. CO Code Assignment Guidelines at § 8.3. Absent consensus resolution, the matter is then referred to the "appropriate regulatory body" for resolution. *Id.*

574 *See* Level 3 comments at 10 (stating that there are many factors outside the new entrants' control which may delay its ability to provide service); MediaOne comments at 12 (stating that where the delay is outside of the control of the NXX-holding carrier, the carrier should have the ability to retain its codes so long as it can show that it will use them in a reasonable period).

575 *See* CinBell comments at 7; MediaOne comments at 16; North Carolina Commission comments at 9; SBC comments at 43; Small Business Alliance comments at 21; VoiceStream comments at 21.

576 *Notice*, 14 FCC Rcd at 10365.

of time.[577]

241. We also adopt our tentative conclusion to require the initiation of reclamation action within sixty days of expiration of the assignee's applicable activation deadline, instead of the current 18-month timeframe in the Co Code Assignment Guidelines.[578] We believe, therefore, that requiring the NANPA to initiate NXX code reclamation within sixty days of expiration of the assignee's applicable activation deadline should increase the availability of numbers. We note that this modification will conserve numbering resources by limiting the length of time that an NXX code has been left idle. Moreover, a protracted reclamation interval enables misuse of numbering resources by allowing code assignees to hold their numbers.[579] We adopt the above-mentioned changes to the CO Code Assignment Guidelines as FCC rules.[580] We note that the reclamation provisions set forth in this *Report and Order* are subject to a carrier's ability to maintain a six-month inventory of numbering resources.[581]

B. Sequential Number Assignment

a. Background

242. The INC Thousand Block Pooling Administration Guidelines state that, prior to the pooling implementation date, carriers are to protect thousands blocks that are less than 10% contaminated.[582] Moreover, the Thousand Block Pooling Guidelines state that thousands-block number pooling applicants requesting resources from the industry inventory pool "should attempt to assign TNs [telephone numbers] out of a given thousand block before making assignment out of another thousand block."[583] We sought comment in the *Notice* on whether we should order some form of sequential number assignment prior to the implementation of pooling.[584] Specifically, we envisioned the adoption of a strict sequential number assignment requirement that

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577 *See* New York Commission comments at 8.

578 Several commenting parties support our tentative conclusion. *See* Connecticut Commission comments at 6; MediaOne comments at 15; New York Commission comments at 8; North Carolina Commission comments at 10; SBC comments at 66; VoiceStream comments at 22. *But see* ALTS comments at 17 (supporting some reduction in the current reclamation provisions but stating that 60 days is too short to accommodate unavoidable delays in activating NXX codes).

579 *See* VoiceStream comments at 22.

580 *See* Appendix A.

581 *See supra* ¶¶ 188-89

582 *See* Thousands Block Pooling Guidelines at § 8.2.4. Service providers are required to protect blocks with less than 10% contamination, unless the service provider does not have an adequate supply of numbers in its inventory to meet customer needs (other than for "vanity" numbers). *Id*.

583 Thousands Block Pooling Guidelines at § 2.7(d).

584 *Notice*, 14 FCC Rcd at 10404.

would require carriers to assign numbers within individual thousands blocks sequentially, and except where necessary to specific customer needs, to fill or substantially fill each thousands block before beginning to assign numbers from another block.[585] We also asked whether sequential number assignment should be limited to those areas in which pooling would be required within a certain amount of time and whether non-LNP-capable carriers should be required to assign numbers sequentially in anticipation of a pooling mandate at some future time.[586] In addition, we sought comment on whether the decision to require sequential number assignment should be left to state commissions, and whether there existed any consistency concerns that would be better addressed by adoption of a nationwide standard.[587] We further asked whether we should adopt any exceptions to a general requirement of sequential number assignment to permit a service provider to meet the needs of a large customer or respond to other types of customer requests or needs.[588] Moreover, we asked whether sequential number assignment causes undue burden to any particular industry segment, or creates unnecessary customer inconvenience.[589]

243. Since the release of the *Notice*, several state commissions were granted interim authority by the Commission to require sequential number assignment rules prior to or in connection with the commencement of thousands-block number pooling trials.[590] In light of the concern that a grant of this authority to the state commissions could interfere with a carrier's ability to satisfy a customer request for a particular set of numbers, we urged the state commissions to allow carriers some flexibility in assigning numbers sequentially.[591] Similar to using utilization or "fill" rates for growth codes, we also insisted that the state commissions consult with each other to attempt to implement consistent rules for sequential number assignment.[592]

b. Discussion

244. We adopt a flexible requirement which mandates that carriers first assign all available telephone numbers within an opened thousands-block before opening another thousands-block, unless the available numbers in the opened thousands-block are not sufficient to meet a customer request. We note that this requirement applies to a carriers existing numbering resources as well as any new numbering resources it obtains in the future. We believe that such a

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585 *Id.*

586 *Id.* at 10404-05.

587 *Id.*

588 *Id.*

589 *Id.*

590 *California Delegation Order*, 14 FCC Rcd at 17499-500; *Ohio Delegation Order* at ¶ 24; *Texas Delegation Order* at ¶ 29; *Wisconsin Delegation Order* at ¶ 24.

591 *Id.*

592 *Id.*

requirement will adequately protect clean thousands-blocks from unnecessary contamination. We agree with commenting parties who express concern that the strict sequential numbering requirement we discussed in the *Notice* may be too inflexible to meet customer needs.[593] We believe, however, that the implementation of a requirement to manage thousands-blocks to maximize the availability of clean or lightly contaminated thousands blocks will increase the efficacy of pooling.

245. Under our requirement, a carrier that opens a clean block prior to utilizing in its entirety a previously-opened thousands-block should be prepared to demonstrate to the state commission: (1) a genuine request from a customer detailing the specific need for telephone numbers; (2) the inability on the part of the carrier to meet the specific customer request for telephone numbers from the surplus of numbers within the carrier's currently activated thousands-block. We believe that this requirement will improve carrier efficiency in utilizing numbering resources, while maintaining carrier flexibility in meeting customer demand. We also acknowledge that this requirement has the potential to forestall other thousands blocks from becoming contaminated - and thus ineligible for possible donation to a pool. We also find that sequential number assignment may improve carrier efficiency in utilizing numbering resources, regardless of whether pooling is implemented.

246. We further require that existing delegations of sequential numbering authority conform to the provisions herein. State commissions are required to conform their existing sequential number assignment requirements by January 1, 2001. We recognize the potential inconvenience and confusion from the existence of disparate requirements, and believe that a uniform requirement will be more manageable. To the extent that this requirement and any other requirement articulated in this *Report and Order* conflicts with the Thousand Block Pooling Guidelines, all carriers are required to follow this mandate.

VII. FURTHER NOTICE OF PROPOSED RULEMAKING

247. *Introduction*. In the accompanying *Report and Order*, we seek to address the underlying drivers of area code exhaust and thereby extend the life of the NANP through effective number conservation and efficient utilization measures. We adopted both administrative and technical measures that are designed to increase the efficient allocation and use of NANP resources. Specifically, we adopted numbering status definitions that must be used by carriers to categorize their numbering resources and report utilization information in semi-annual reports and requests for numbering resources. We also adopted enhanced data reporting and audit requirements to increase efficient management of and carrier accountability for numbering

[593] *See* Bell Atlantic comments at 31 (arguing that carriers should be able to meet specific customer requirements with any number resource at their disposal); PrimeCo comments at 9 (stating that carriers should be able to extract a certain quantity of numbers from each NXX code to be held as 'vanity" numbers); WinStar comments at 32 (noting that any numbering scheme must allow service providers the opportunity to hold aside 20% of an NXX code for the assignment of preferred or "vanity" numbers, and that part of the guidelines could include opportunity for a service provider to extract a certain quantity of numbers from each NXX block to be held as "vanity" numbers and for large customers requiring even blocks of numbers).

resources. In addition, we approved thousands-block number pooling as an essential numbering resource optimization strategy. To better ensure that numbering resources are used efficiently, we adopted numbering resource reclamation requirements. We delegated additional authority to state commissions to require sequential numbering assignment in order to encourage better management of numbering resources. Further, we established a utilization threshold framework that links the allocation of numbering resources with an actual need by the carrier for those resources to provide service.

A. Utilization Threshold

248. As noted in the *Report and Order*, we seek further comment on what specific utilization threshold carriers not participating in thousands-block number pooling carriers should meet in order to request growth numbering resources. Commenters that offered a specific utilization threshold suggested that utilization thresholds should be set as low as 60% and as high as 90%. However, very little information was provided as to the basis for these specific threshold levels. We seek comment on specific utilization threshold(s). Comments should include rationale for the specific threshold(s) recommended, including the initial level, annual increases, and the maximum level. We tentatively conclude that a nationwide utilization threshold for growth numbering resources should be initially set at 50%. This threshold would increase by 10% annually until it reaches 80%. Additionally, we propose to require carriers to meet a specific rate center–based utilization threshold for the rate center in which it is seeking additional numbering resources. If parties propose a utilization threshold range, parties should explain in detail what criteria should be used to determine the specific rate-center based utilization threshold within that range. We seek further comment on whether state commissions should be allowed to set the rate-center based utilization threshold within this range based on criteria that we establish. We also seek further comment on utilization thresholds at the rate center level, that should operate in unison with the thresholds at the NPA level.

B. Implementation of Pooling for Non-LNP-Capable Carriers

249. We seek comment on whether covered CMRS carriers should be required to participate in pooling immediately upon expiration of the LNP forbearance period on November 24, 2002. In the alternative, we seek comment on whether we should allow some sort of transition period between the time that covered CMRS carriers must implement LNP, and the time that they must participate in pooling,[594] and if so, what the minimum reasonable allowance for such a transition period would be. We note that by determining in this order that covered CMRS carriers will be required to participate in pooling once they have acquired LNP capability, we are providing a fairly long lead-time – more than two years – in which all of the necessary preparations may be accomplished. We further note that after they have acquired LNP capability, covered CMRS providers will be subject to the same terms and conditions regarding participation in thousands-block number pooling as are other LNP-capable carriers. For example, CMRS providers within and outside the top 100 MSAs will not be subject to pooling unless they have received a request for LNP from another carrier, and pooling will be limited to the same service

[594] *Cf.* AT&T comments at 48; GTE comments at 50-51.

area as their LNP deployment.

C. Pricing for Numbers

250. In the *Notice* we indicated that an alternative approach for improving the allocation and utilization of numbering resources would be to require carriers to pay for them. We noted that this approach could be in isolation or in combination with the administrative and numbering optimization approaches identified in the *Notice*.[595]

251. Many commenters opposed pricing for numbering resources. One of the primary economic reasons given for opposing a market-based allocation system was that numbering resources are allocated in 10,000 blocks by rate center. Pricing under this paradigm, it was argued, would create a barrier to entry to new markets.[596] This could be true if carriers were barred from sharing spare numbering resources with other carriers. In any case, we continue to believe that a market-based approach is the most pro-competitive, least intrusive way of ensuring that numbering resources are efficiently allocated. We believe that thousands-block pooling will substantially reduce the quantity of numbering resources new entrants will need to accumulate to enter a market. Therefore, we seek further comment on how a market-based allocation system for numbering resources could be implemented. Specifically, we seek comment on how a market-based allocation system would affect the efficiency of allocation of numbers among carriers. Given that our motivation in seeking comment on such an approach is to increase the efficiency with which numbering resources are allocated, and not to raise additional funds, we also seek comment on whether funds collected in this way could be used to offset other payments carriers make, such as contributions to the universal service and TRS programs. Commenters addressing this issue should specifically address how to account for the fact that some carriers, such as interexchange carriers, do not generally use numbering resources but currently contribute to these other programs. Commenters should also ensure that their proposals provide market-based incentives for carriers to economize their use of numbering resources.

D. Recovery of Shared Industry and Direct Carrier-Specific Costs

252. Requiring incumbent LECs to bear their own costs related to thousands-block number pooling will not disadvantage any telecommunications carrier. All other carriers are also required to bear their own shared industry and carrier-specific costs. In the *Notice*, we tentatively concluded that incumbent LECs subject to rate-of-return or price cap regulation may not recover their interstate carrier-specific costs directly related to thousands-block number pooling through a federal charge assessed on end-users, but may recover the costs through other cost recovery mechanisms.[597] Several parties agree with the tentative conclusion that thousands-block number pooling costs should not be recovered through a federal charge assessed on end users, but should

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595 *Notice*, 14 FCC Rcd at 10416.

596 Texas Public Util. Counsel and NASUCA comments at 40.

597 *Notice*, 14 FCC Rcd at 10410.

be recovered through access charges.[598] Some commenters recommend that price cap LECs should be allowed to treat the thousands-block pooling number costs as exogenous cost adjustments or, alternatively, place the costs in a new or existing price cap basket.[599] Other parties, however, urge us to abandon our tentative conclusion because recovery through access charges would violate the competitive neutrality standard of section 251(e)(2).[600]

253. In the *Notice*, we requested detailed estimates of the costs of thousands-block number pooling and asked that commenters separate the estimates by category of costs.[601] We also sought comment on the appropriate methodology for developing these and other cost estimates.[602] The amount and detail of the data provided in response to our request is insufficient for us to determine the amount and/or magnitude of the costs associated with thousands-block number pooling. Without sufficient cost data, it is difficult for us to determine the appropriate cost recovery mechanism for these costs. We, therefore, find it necessary to request additional cost information prior to making a final decision on the appropriate method of cost recovery. We seek further comment and cost studies that quantify shared industry and direct carrier-specific costs of thousands-block number pooling. We also seek comment and cost studies that take into account the cost savings associated with thousands-block pooling in comparison to the current numbering practices that result in more frequent area code changes.

VIII. PROCEDURAL MATTERS

A. *Ex Parte* Presentations

254. This matter shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.[603] Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a list of the subjects discussed. More than a one or two sentence description of the views and arguments presented is generally required.[604]

B. Comment Filing Procedures

255. Pursuant to applicable procedures set forth in sections 1.415 and 1.419 of the

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[598] NECA comments at 2; New Hampshire Commission comments at 18; New York Commission comments at 12; Ohio Commission comments at 35.

[599] *See* Cox comments at 17; USTA comments at 11; U S West comments at 34 (stating that ongoing costs of number pooling should be recovered through an ongoing exogenous adjustment).

[600] MCI WorldCom comments at 53.

[601] *Notice*, 14 FCC Rcd at 10407-08.

[602] *Id.*

[603] *See* Amendment of 47 C.F.R. 1.1200 et seq. Concerning Ex Parte Presentations in Commission Proceedings, *Repo rt and Order*, 12 FCC Rcd 7348, 7356-57 (1997) (citing 47 C.F.R. § 1.1204(b)(1)).

[604] *See* 47 C.F.R. § 1.1206(b)(2).

Commission's rules, 47 C.F.R. §§1.415 and 1.419, interested parties may file comments on or before May 1, 2000, and reply comments on or before May 16, 2000. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.[605] Comments filed through the ECFS can be sent as an electronic file via the Internet to http://www.fcc.gov/e-file/ecfs.html. Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, commenters should include their full name, Postal Service mailing address, and the applicable docket or rulemaking number, which in this instance is CC Docket No. 99-200. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form <your e-mail address>." A sample form and directions will be sent in reply.

256. Parties who choose to file by paper must file an original and four copies of each filing. All filings must be sent to the Commission's Secretary, Magalie Roman Salas, Office of the Secretary, Federal Communications Commission, 445 Twelfth Street, S.W. Room TW A325, Washington, D.C. 20554.

257. Comments and reply comments must include a short and concise summary of the substantive arguments raised in the pleading. Comments and reply comments must also comply with section 1.49 and all other applicable sections of the Commission's rules.[606] We also direct all interested parties to include the name of the filing party and the date of the filing on each page of their comments and reply comments. All parties are encouraged to utilize a table of contents, regardless of the length of their submission.

258. Parties who choose to file paper should submit their comments on diskette. These diskettes should be submitted to Jeannie Grimes, Network Services Division, Common Carrier Bureau, 445 Twelfth Street, S.W., Room 6-A207, Washington, D.C. 20554. Such submissions should be on a 3.5-inch diskette formatted in an IBM compatible format using Word for Windows or compatible software. The diskette should be accompanied by a cover letter and should be submitted in "read only" mode. The diskette should be clearly labeled with the commenter's name, proceeding (including the docket number), type of pleading (comment or reply comment), date of submission, and the name of the electronic file on the diskette.

259. Regardless of whether parties choose to file electronically or by paper, parties should also file one copy of any documents filed in this docket with the Commission's copy contractor, International Transcription Services, Inc., 1231 20th Street, N.W., Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center, 445 Twelfth Street, S.W. Washington, D.C. 20554.

C. Regulatory Flexibility Act

260. As required by the Regulatory Flexibility Act (RFA), 5 U.S.C. § 603, an Initial

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605 *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 Fed. Reg. 24, 121 (1998).

606 *See* 47 C.F.R. § 1.49.

Regulatory Flexibility Analysis (IRFA) was incorporated in the *Notice*. The Commission sought written public comment on the proposals in the *Notice*, including the IRFA.[607] Appendix B sets forth the Final Regulatory Flexibility Analysis for the *Report and Order*.

D. Final Paperwork Reduction Act Analysis

261. The *Notice* from which the *Report and Order* issues proposed changes to the Commission's information collection requirements. As required by the Paperwork Reduction Act of 1995, the Commission sought comment from the public and from the Office of Management and Budget (OMB) on the proposed changes. This *Report and Order* contains several new information collections, which will be submitted to OMB for approval, as prescribed by the Paperwork Reduction Act.

E. Further Notice Initial Paperwork Reduction Act Analysis

262. This *Further Notice* does not contain either a proposed nor a modified information collection, and therefore, there is no need to seek comments from the general public and the OMB.

[607] 5 U.S.C. § 603(a).

IX. ORDERING CLAUSES

263. Accordingly, IT IS ORDERED that, pursuant to Sections 1, 3, 4, 201-205, 251 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, and 251, this REPORT AND ORDER is hereby ADOPTED and Part 52 of the Commission's rules ARE AMENDED as set forth in the attached Appendix A.

264. IT IS FURTHER ORDERED that the amendments to sections 52.7 through 52.19 of the Commission's rules as set forth in Appendix B ARE ADOPTED, effective thirty days from the date of publication in the Federal Register. The action contained herein has been analyzed with respect to the Paperwork Reduction Act of 1995 and found to impose new or modified reporting and/or recordkeeping requirements or burdens on the public. Implementation of these new or modified reporting and/or recordkeeping requirements will be subject to approval by the Office of Management and Budget (OMD) as prescribed by the Act, and will go into effect upon announcement in the Federal Register of OMB approval.

265. IT IS FURTHER ORDERED that pursuant to Sections 1, 3, 4, 201-205, 251 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 153, 154, 201-205, and 251 this FURTHER NOTICE OF PROPOSED RULEMAKING is hereby ADOPTED.

266. IT IS FURTHER ORDERED that the Commission's Consumer Information Bureau, Reference Information Center, SHALL SEND a copy of this *Report and Order and Further Notice of Proposed Rulemaking*, including the Initial and Final Regulatory Flexibility Analyses, to the Chief Counsel for Advocacy of Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas
Secretary

Appendix A

Final Rules

PART 52 – NUMBERING

Subpart B – Administration

1. The authority citation for Part 52 continues to read as follows:

AUTHORITY: Sections 1, 2, 4, 5, 48 Stat. 1066, as amended; 47 U.S.C. § 151, 152, 154, 155 unless otherwise noted. Interpret or apply secs. 3, 4, 201-05, 207-09, 218, 225-7, 251-2, 271 and 332, 48 Stat. 1070, as amended, 1077; 47 U.S.C. 153, 154, 201-205, 207-09, 218, 225-7, 251-2, 271 and 332 unless otherwise noted.

2. Section 52.5 is revised to read as follows:

§ 52.5 Definitions.

(a) ***

(b) ***

(c) ***

(d) ***

(e) ***

(f) ***

(g) ***

(h) ***

(i) *Service Provider*. The term "service provider" refers to a telecommunications carrier or other entity that receives numbering resources from the NANPA, a Pooling Administrator or a telecommunications carrier for the purpose of providing or establishing telecommunications service.

3. Section 52.7 is revised to read as follows:

§ 52.7 Definitions.

(a) ***

(b) ***

(c) ***

(d) ***

(e) ***

(f) ***

(g) *Pooling Administrator (PA)*. The term Pooling Administrator refers to the entity or entities responsible for administering a thousands-block number pool.

(h) *Contamination*. Contamination occurs when at least one telephone number within a block of telephone numbers is not available for assignment to end users or customers. For purposes of this provision, a telephone number is "not available for assignment" if it is classified as administrative, aging, assigned, intermediate, or reserved as defined in new § 52.15(f)(1) of this part.

(i) *Donation*. The term "donation" refers to the process by which carriers are required to contribute telephone numbers to a thousands-block number pool.

(j) *Inventory*. The term "inventory" refers to all telephone numbers distributed, assigned or allocated:

(1) To a service provider; or

(2) To a pooling administrator for the purpose of establishing or maintaining a thousands-block number pool.

4. Section 52.15 is revised to read as follows:

§ 52.15 Central office code administration.

(a) ***

(b) ***

(c) ***

(d) ***

(e) ***

(f) *Mandatory Reporting Requirements.*

(1) *Number Use Categories.* Numbering resources must be classified in one of the following categories:

(i) *Administrative numbers* are numbers used by telecommunications carriers to perform internal administrative or operational functions necessary to maintain reasonable quality of service standards.

(ii) *Aging numbers* are disconnected numbers that are not available for assignment to another end user or customer for a specified period of time. Numbers previously assigned to residential customers may be aged for no more than 90 days. Numbers previously assigned to business customers may be aged for no more than 360 days.

(iii) *Assigned numbers* are numbers working in the Public Switched Telephone Network under an agreement such as a contract or tariff at the request of specific end users or customers for their use, or numbers not yet working but having a customer service order pending. Numbers that are not yet working and have a service order pending for more than five days shall not be classified as assigned numbers.

(iv) *Available numbers* are numbers that are available for assignment to subscriber access lines, or their equivalents, within a switching entity or point of interconnection and are not classified as assigned, intermediate, administrative, aging, or reserved.

(v) *Intermediate numbers* are numbers that are made available for use by another telecommunications carrier or non-carrier entity for the purpose of providing telecommunications service to an end user or customer. Numbers ported for the purpose of transferring an established customer's service to another service provider shall not be classified as intermediate numbers.

(vi) *Reserved numbers* are numbers that are held by service providers at the request of specific end users or customers for their future use. Numbers held for specific end users or customers for more than 45 days shall not be classified as reserved numbers.

(2) *Reporting Carrier.* The term "reporting carrier" refers to a telecommunications carrier that receives numbering resources from the NANPA, a Pooling Administrator or another telecommunications carrier.

(3) *Data Collection Procedures.*

(i) Reporting carriers shall report utilization and forecast data to the NANPA.

(ii) Reporting shall be by separate legal entity and must include company name, company headquarters address, OCN, parent company OCN(s), and the

primary type of business for which the numbers are being used.

(iii) All data shall be filed electronically in a format approved by the Common Carrier Bureau.

(4) *Forecast Data Reporting.*

(i) Reporting carriers shall submit to the NANPA a five-year forecast of their yearly numbering resource requirements.

(ii) In areas where thousands-block number pooling has been implemented:

(A) Reporting carriers that are required to participate in thousands-block number pooling shall report forecast data at the thousands-block (NXX-X) level per rate center;

(B) Reporting carriers that are not required to participate in thousands-block number pooling shall report forecast data at the central office code (NXX) level per rate center.

(iii) In areas where thousands-block number pooling has not been implemented, reporting carriers shall report forecast data at the central office code (NXX) level per NPA.

(iv) Reporting carriers shall identify and report separately initial numbering resources and growth numbering resources.

(5) *Utilization Data Reporting.*

(i) Reporting carriers shall submit to the NANPA a utilization report of their current inventory of numbering resources. The report shall classify numbering resources in the following number use categories: *assigned*, *intermediate*, *reserved*, *aging*, and *administrative*.

(ii) Rural telephone companies, as defined in the Communications Act of 1934, as amended, 47 U.S.C. § 153(37), that provide telecommunications service in areas where local number portability has not been implemented shall report utilization data at the central office code (NXX) level per rate center in those areas.

(iii) All other reporting carriers shall report utilization data at the thousands-block (NXX-X) level per rate center.

(6) *Reporting Frequency*.

(i) Reporting carriers shall file forecast and utilization reports semi-annually on or before February 1 for the preceding reporting period ending on December 31, and on or before August 1 for the preceding reporting period ending on June 30. Mandatory reporting shall commence August 1, 2000.

(ii) State commissions may reduce the reporting frequency for NPAs in their states to annual. Reporting carriers operating in such NPAs shall file forecast and utilization reports annually on or before August 1 for the preceding reporting period ending on June 30, commencing August 1, 2000.

(iii) A state commission seeking to reduce the reporting frequency pursuant to subsection (ii) of this provision shall notify the Common Carrier Bureau and the NANPA in writing prior to reducing the reporting frequency.

(7) *Access to Data and Confidentiality.* States shall have access to data reported to the NANPA provided that they have appropriate protections in place to prevent public disclosure of disaggregated, carrier-specific data.

(g) *Applications for Numbering Resources*.

(1) *General Requirements*. All applications for numbering resources must include the company name, company headquarters address, OCN, parent company's OCN(s), and the primary type of business in which the numbering resources will be used.

(2) *Initial numbering resources.* Applications for initial numbering resources shall include evidence that:

(i) The applicant is authorized to provide service in the area for which the numbering resources are being requested; and

(ii) The applicant is or will be capable of providing service within sixty (60) days of the numbering resources activation date.

(3) *Growth numbering resources.*

(i) Applications for growth numbering resources shall include:

(A) A Months-to-Exhaust Worksheet that provides utilization by rate center for the preceding six months and projected monthly utilization for the next twelve (12) months; and

(B) The applicant's current numbering resource utilization level for the rate center in which it is seeking growth numbering resources.

(ii) The numbering resource utilization level shall be calculated by dividing all *assigned numbers* by the total numbering resources in the applicant's inventory and multiplying the result by 100. Numbering resources activated in the Local Exchange Routing Guide (LERG) within the preceding 90 days of reporting utilization levels may be excluded from the utilization calculation.

(iii) All service providers shall maintain no more than a six-month inventory of telephone numbers in each rate center or service area in which it provides telecommunications service.

(iv) The NANPA shall withhold numbering resources from any U.S. carrier that fails to comply with the reporting and numbering resource application requirements established in this part. The NANPA shall not issue numbering resources to a carrier without an Operating Company Number (OCN). The NANPA must notify the carrier in writing of its decision to withhold numbering resources within ten (10) days of receiving a request for numbering resources. The carrier may challenge the NANPA's decision to the appropriate state regulatory commission. The state regulatory commission may affirm or overturn the NANPA's decision to withhold numbering resources from the carrier based on its determination of compliance with the reporting and numbering resource application requirements herein.

(h) [Reserved]

(i) *Reclamation of numbering resources.*

(1) Reclamation refers to the process by which service providers are required to return numbering resources to the NANPA or the Pooling Administrator.

(2) State commissions may investigate and determine whether service providers have activated their numbering resources and may request proof from all service providers that numbering resources have been activated and assignment of telephone numbers has commenced.

(3) Service providers may be required to reduce contamination levels to facilitate reclamation and/or pooling.

(4) State commissions shall provide service providers an opportunity to explain the circumstances causing the delay in activating and commencing assignment of their numbering resources prior to initiating reclamation.

(5) The NANPA and the Pooling Administrator shall abide by the state commission's determination to reclaim numbering resources if the state commission is satisfied

that the service provider has not activated and commenced assignment to end users of their numbering resources within six months of receipt.

(6) The NANPA and Pooling Administrator shall initiate reclamation within sixty days of expiration of the service provider's applicable activation deadline.

(7) If a state commission declines to exercise the authority delegated to it in this subsection, the entity or entities designated by the Commission to serve as the NANPA shall exercise this authority with respect to NXX codes and the Pooling Administrator shall exercise this authority with respect to thousands-blocks. The NANPA and the Pooling Administrator shall consult with the Common Carrier Bureau prior to exercising the authority delegated to it in this provision.

(j) *Sequential Number Assignment*.

(1) All service providers shall assign all available telephone numbers within an opened thousands-block before assigning telephone numbers from an uncontaminated thousands-block, unless the available numbers in the opened thousands-block are not sufficient to meet a specific customer request. This requirement shall apply to a service provider's existing numbering resources as well as any new numbering resources it obtains in the future.

(2) A service provider that opens an uncontaminated thousands-block prior to assigning all available telephone numbers within an opened thousands-block should be prepared to demonstrate to the state commission:

(i) A genuine request from a customer detailing the specific need for telephone numbers; and

(ii) The service provider's inability to meet the specific customer request for telephone numbers from the available numbers within the service provider's opened thousands-blocks.

(3) Upon a finding by a state commission that a service provider inappropriately assigned telephone numbers from an uncontaminated thousands-block, the NANPA or the Pooling Administrator shall suspend assignment or allocation of any additional numbering resources to that service provider in the applicable NPA until the service provider demonstrates that it does not have sufficient numbering resources to meet a specific customer request.

5. Part 52 is revised by adding new section 52.20:

§ 52.20 Thousands-block number pooling.

(a) *Definition.* Thousands-block number pooling is a process by which the 10,000 numbers in a central office code (NXX) are separated into ten sequential blocks of

1,000 numbers each (thousands-blocks), and allocated separately within a rate center.

(b) *General Requirements*. Pursuant to the Commission's adoption of thousands-block number pooling as a mandatory nationwide numbering resource optimization strategy, all carriers capable of providing local number portability (LNP) must participate in thousands-block number pooling where it is implemented and consistent with the national thousands-block number pooling framework established by the Commission.

(c) *Donation of thousands-blocks.*

(1) All service providers required to participate in thousands-block number pooling shall donate thousands-blocks with less than ten percent contamination to the thousands-block number pool for the rate center within which the numbering resources are assigned.

(2) All service providers required to participate in thousands-block number pooling shall be allowed to maintain at least one thousands-block per rate center, even if the thousands-block is less than ten-percent contaminated, as an initial block or footprint block.

(3) Telephone numbers assigned to customers of service providers from donated thousands-blocks that are contaminated shall be ported back to the donating service provider.

(d) *Thousands-Block Pooling Administrator.*

(1) The Pooling Administrator shall be a non-governmental entity that is impartial and not aligned with any particular telecommunication industry segment, and shall comply with the same neutrality requirements that the NANPA is subject to under this part.

(2) The Pooling Administrator shall maintain no more than a six-month inventory of telephone numbers in each thousands-block number pool.

Appendix B

Final Regulatory Flexibility Act Analysis

1. As required by the Regulatory Flexibility Act (RFA),[608] an Initial Regulatory Flexibility Analysis (IRFA) was incorporated into the *Notice*.[609] The Commission sought written public comment on the proposals in the *Notice*, including comment on the IRFA. There were no comments received on the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.[610]

2. *Need for and Objectives of this Report and Order.* In the *Notice* we sought public comment on how best to create national standards for numbering resource optimization. In doing so, the primary objective was to (1) ensure sufficient access to numbering resources for all service providers that need them to enter into or to compete in telecommunications markets; (2) avoid, or at least delay, exhaust of the NANP and the need to expand the NANP; (3) minimize the negative impact on consumers; (4) impose the least cost possible, in a competitively neutral manner, while obtaining the highest benefit; (5) ensure that no class of carrier or consumer is unduly favored or disfavored by our numbering resource optimization efforts; and (6) minimize the incentives for building and carrying excessively large inventories of numbers.

3. In this *Report and Order* we adopt administrative and technical measures that will allow us to monitor more closely the way numbering resources are used within the NANP. Specifically, we adopt a mandatory data reporting requirement, a uniform set of categories of numbers for which carriers must report their utilization, and a utilization threshold framework to increase carrier accountability and incentives to use numbers efficiently. In addition, we adopt a system for allocating numbers in blocks of one thousand, rather than ten thousand, wherever possible ("thousands-block number pooling"), and establish a plan for national rollout of thousands-block number pooling. Furthermore, we adopt numbering resource reclamation requirements to ensure the return of unused numbers to the NANP inventory for assignment to other carriers. We also mandate sequential assignment of numbering resources within thousands blocks to facilitate reclamation and the establishment of thousands-block number pools.

4. *Description and Estimate of the Number of Small Entities That May Be Affected by this Report and Order.* The RFA directs agencies to provide a description of, and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.[611] The Regulatory Flexibility Act defines the term "small entity" as having the same

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608 *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et seq.*, has been amended by the Contract with America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

609 *See Notice*, 14 FCC Rcd at 10433-34.

610 *See* 5 U.S.C. § 604.

611 5 U.S.C. § 603(b)(3).

meaning as the terms “small business,” “small organization,” and “small business concern” under section 3 of the Small Business Act.[612] A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.[613]

5. In this FRFA, we have considered the potential impact of this *Report and Order* on all users of telephone numbering resources. The small entities possibly affected by these rules include wireline, wireless, and other entities, as described below. The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4,812 (Radiotelephone Communications) and 4,813 (Telephone Communications, Except Radiotelephone) to be small entities having no more than 1,500 employees.[614] In the FRFA to the *Universal Service Order*, we described and estimated in detail the number of small entities that would be affected by the new universal service rules.[615] Although some affected incumbent local exchange carriers (ILECs) may have 1,500 or fewer employees, we do not believe that such entities should be considered small entities within the meaning of the RFA because they are either dominant in their field of operations or are not independently owned and operated, and therefore by definition are not "small entities" or "small business concerns" under the RFA. Accordingly, our use of the terms "small entities" and "small businesses" does not encompass small ILECs. Out of an abundance of caution, however, for regulatory flexibility analysis purposes, we will separately consider small ILECs within this analysis and use the term "small ILECs" to refer to any ILECs that arguably might be defined by the SBA as "small business concerns."[616]

6. The most reliable source of information regarding the total numbers of certain common carrier and related providers nationwide, as well as the numbers of commercial wireless entities, appears to be data the Commission publishes annually in its *Carrier Locator: Interstate Service Providers Report (Locator)*.[617] These carriers include, *inter alia*, local exchange carriers, competitive local exchange carriers, interexchange carriers, competitive access providers, satellite service providers, wireless telephony providers, operator service providers, pay telephone

612 *Id*. at § 601(3).

613 *Id*. at § 632.

614 13 C.F.R. § 121.201.

615 Federal-State Joint Board on Universal Service, *Report and Order*, CC Docket No. 96-45, 12 FCC Rcd 8776, 9227-9243 (1997) (*Universal Service Order*), as corrected by Federal-State Joint Board on Universal Service, *Erratum*, CC Docket No. 96-45, FCC 97-157 (rel. June 4, 1997), *appeal pending sub nom. Texas Office of Public Utility Counsel v. FCC and USA*, No. 97-60421 (5th Cir. 1997).

616 *See* 13 C.F.R. § 121.201, SIC code 4813. Since the time of the *Local Competition* decision, 11 FCC Rcd 15499, 16144-45 (1996), 61 FR 45476 (Aug. 29, 1996), the Commission has consistently addressed in its regulatory flexibility analyses the impact of its rules on such ILECs.

617 FCC, Carrier Locator: Interstate Service Providers at 1-2. This report lists 3,604 companies that provided interstate telecommunications service as of December 31, 1997 and was compiled using information from Telecommunications Relay Service (TRS) Fund Worksheets filed by carriers (Jan. 1999).

operators, providers of telephone toll service, providers of telephone exchange service, and resellers.

7. *Total Number of Companies Affected*. The U.S. Bureau of the Census (Census Bureau) reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, as defined therein, for at least one year.[618] This number contains a variety of different categories of carriers, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, mobile service carriers, operator service providers, pay telephone operators, personal communications services providers, covered specialized mobile radio providers, and resellers. It seems certain that some of those 3,497 telephone service firms may not qualify as small entities or small ILECs because they are not "independently owned and operated."[619] For example, a PCS provider that is affiliated with an interexchange carrier having more than 1,500 employees would not meet the definition of a small business. It is reasonable to conclude that fewer than 3,497 telephone service firms are small entity telephone service firms or small ILECs that may be affected by the proposed rules, if adopted.

8. *Local Service Providers*. There are two principle providers of local telephone service; ILECS and competitive local service providers. Neither the Commission nor the SBA has developed a definition for small providers of local exchange services (LECs). The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[620] According to data set forth in the *FCC Statistics of Communications Common Carriers* (*SOCC*), 34 ILECs have more than 1,500 employees.[621] We do not have data specifying the number of these carriers that are either dominant in their field of operations or are not independently owned and operated, and thus are unable at this time to estimate with greater precision the number of ILECs that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that fewer than 1,376 ILECs are small entities that may be affected by the proposed rules, if adopted.

9. We have included small incumbent LECs in this present RFA analysis. As noted above, a "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (*e.g.*, a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[622] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent LECs are not dominant in their field of operation because any

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618 U.S. Department of Commerce, Bureau of the Census, *1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size*, at Firm Size 1-123 (1995) (*1992 Census*).

619 *See generally* 15 U.S.C. § 632(a)(1).

620 *Id.*

621 *SOCC* at Table 2.9.

622 5 U.S.C. § 601(3).

such dominance is not "national" in scope.[623] We have therefore included small incumbent LECs in this RFA analysis, although we emphasize that this RFA action has no effect on FCC analyses and determinations in other, non-RFA contexts.

10. *Competitive Local Service Providers*. This category includes competitive access providers (CAPs), competitive local exchange providers (CLECs), shared tenant service providers, local resellers, and other local service providers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to competitive local service providers. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[624] According to the most recent *Locator* data, 145 carriers reported that they were engaged in the provision of competitive local service.[625] We do not have data specifying the number of these carriers that are not independently owned or operated, and thus are unable at this time to estimate with greater precision the number of competitive local service providers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 145 small entity competitive local service providers that may be affected by the proposed rules, if adopted.

11. *Providers of Toll Service*. The toll industry includes providers of interexchange services (IXCs), satellite service providers and other toll service providers, primarily resellers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to providers of toll service. The closest applicable definition under the SBA rules is for telephone communications companies other than radiotelephone (wireless) companies.[626] According to the most recent *Locator* data, 164 carriers reported that they were engaged in the provision of toll services.[627] We do not have data specifying the number of these carriers that are not independently owned and operated or have more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of toll providers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 164 small entity toll providers that may be affected by the proposed rules, if adopted.

12. *Resellers*. This category includes toll resellers, operator service providers, pre-

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[623] Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of "small business concern," which the RFA incorporates into its own definition of "small business." *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. 13 C.F.R. § 121.102(b). Since 1996, out of an abundance of caution, the Commission has included small incumbent LECs in its regulatory flexibility analyses. *See, e.g.*, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, *First Report and Order*, 11 FCC Rcd 15499, 16144-45 (1996).

[624] 13 C.F.R. § 121.201, SIC code 4813.

[625] *Locator* at 1-2.

[626] 13 C.F.R. § 121.201, SIC code 4813.

[627] *Locator* at 1-2.

paid calling card providers, and other toll service providers. Neither the Commission nor the SBA has developed a definition of small entities specifically applicable to resellers. The closest applicable SBA definition for a reseller is a telephone communications company other than radiotelephone (wireless) companies.[628] According to the most recent *Locator* data, 405 carriers reported that they were engaged in the resale of telephone service.[629] We do not have data specifying the number of these carriers that are not independently owned or operated, and thus are unable at this time to estimate with greater precision the number of resellers that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that there are fewer than 405 small entity resellers that may be affected by the proposed rules, if adopted.

13. *Wireless Telephony and Paging and Messaging.* Wireless telephony includes cellular, personal communications service (PCS) or specialized mobile radio (SMR) service providers. Neither the Commission nor the SBA has developed a definition of small entities applicable to cellular licensees, or to providers of paging and messaging services. The closest applicable SBA definition for a reseller is a telephone communications company other than radiotelephone (wireless) companies.[630] According to the most recent *Locator* data, 732 carriers reported that they were engaged in the provision of wireless telephony and 137 companies reported that they were engaged in the provision of paging and messaging service.[631] We do not have data specifying the number of these carriers that are not independently owned or operated, and thus are unable at this time to estimate with greater precision the number that would qualify as small business concerns under the SBA's definition. Consequently, we estimate that fewer than 732 carriers are engaged in the provision of wireless telephony and fewer than 137 companies are engaged in the provision of paging and messaging service.

14. *Cable and Pay Television Service Providers.* The SBA has developed a definition of small entities for cable and other pay television services, which includes all such companies generating $11 million or less in revenue annually.[632] This definition includes cable systems operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems and subscription television services. According to the Census Bureau data from 1992, there were 1,788 total cable and other pay television services and 1,423 had less than $11 million in revenue.[633]

15. The Commission has developed its own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company" is one

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628 13 C.F.R. § 121.201, SIC code 4813.

629 *Locator* at 1-2.

630 13 C.F.R. § 121.201, SIC code 4813.

631 *Locator* at 1-2.

632 13 C.F.R. § 121.201, SIC code 4841.

633 *1992 Economic Census Industry and Enterprise Receipts Size Report*, Table 2D, SIC code 4841 (U.S. Bureau of the Census data under contract to the Office of Advocacy of the U.S. Small Business Administration).

serving fewer than 400,000 subscribers nationwide.[634] Based on our most recent information, we estimate that there were 1,439 cable operators that qualified as small cable system operators at the end of 1995.[635] Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,439 small entity cable system operators.

16. The Communications Act also contains a definition of a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000."[636] The Commission has determined that there are 66,000,000 subscribers in the United States. Therefore, we found that an operator serving fewer than 660,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed $250 million in the aggregate.[637] Based on available data, we find that the number of cable operators serving 660,000 subscribers or less totals 1,450.[638] We do not request nor do we collect information concerning whether cable system operators are affiliated with entities whose gross annual revenues exceed $250,000,000,[639] and thus are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act. It should be further noted that recent industry estimates project that there will be a total of 66,000,000 subscribers, and we have based our fee revenue estimates on that figure.

17. *Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements.*[640] This *Report and Order* mandates the following information collection: All carriers that receive numbering resources from the NANPA (code holders), or that receive numbering resources from a pooling administrator in thousands-blocks (block holders), must

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634 47 C.F.R. § 76.901(e). The Commission developed this definition based on its determination that a small cable system operator is one with annual revenues of $100 million or less. Implementation of Sections of the 1992 Cable Act: Rate Regulation, *Sixth Report and Order and Eleventh Order on Reconsideration*, 10 FCC Rcd 7393 (1995), 60 FR 10534 (Feb. 27, 1995).

635 Paul Kagan Associates, Inc., *Cable TV Investor*, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

636 47 U.S.C. § 543(m)(2).

637 47 C.F.R. § 76.1403(b).

638 Paul Kagan Associates, Inc., *Cable TV Investor, supra*.

639 We do receive such information on a case-by-case basis only if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to section 76.1403(b) of the Commission's rules. *See* 47 C.F.R. § 76.1403(d).

640 *See also Notice*, 14 FCC Rcd at 10433, for an Initial Paperwork Reduction Act analysis.

report forecast and utilization data to the NANPA on a semi-annual basis.[641] All carriers, except rural telephone companies as defined by the Communications Act of 1934, as amended,[642] must report their utilization data at the thousands-block level per rate center.[643] Rural telephone companies in areas where local number portability has not been implemented may report their utilization data at the NXX per rate center level. Forecast data will be reported at the thousands-block per rate center level in pooling NPAs, and in non-pooling NPAs at the NXX per NPA level.[644] Furthermore, carriers not participating in thousands-block number pooling must report their utilization rate along with the months to exhaust worksheet at the time they request additional numbering resources.

18. We require all carriers, except rural telephone companies, to maintain internal records of their numbering resources for all 13 categories (5 major, and 8 subcategories) as defined in Section C. Carriers are to maintain this data for a period of not less than 5 years.[645]

19. *Other Compliance Requirements.* None.

20. *Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered.* We have concluded that the cost of data collection will be minimized if done electronically.[646] Although we have stated that all carriers must report their forecast and utilization data electronically, we have provided for more than one method. Large and mid-size carriers may submit by electronic file transfer similar to FTP. Smaller carriers may file using a NANPA-developed spreadsheet format via Internet-based online access. Very small carriers may fax their data submissions to the NANPA. We find it reasonable to allow any carrier whose forecast and utilization data has not changed from the previous reporting period to simply refile the prior submission or indicate that there has been no change since the last reporting.[647]

21. *Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rules*. None.

22. *Report to Congress*. The Commission will send a copy of this *Report and Order* in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996.[648] In addition, the Commission will send a copy of this *Report and Order*

641 *See supra* ¶ 40.

642 47 U.S.C. § 153(37).

643 *See supra* ¶ 70.

644 *See supra* ¶ 73.

645 *See supra* ¶ 62.

646 *See supra* ¶ 53.

647 *See supra* ¶ 42.

648 *See* 5 U.S.C. § 801(a)(1)(A)

to the Chief Counsel for Advocacy of Small Business Administration. A copy of this *Report and Order* (or summary thereof) will also be published in the Federal Register.[649]

649 *See* 5 U.S.C. § 604(b).

Appendix C

Initial Regulatory Flexibility Act Analysis

1. As required by the Regulatory Flexibility Act (RFA),[650] the Commission has prepared this present Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in this *Further Notice*. Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Further Notice* provided above in section VIII. The Commission will send a copy of the *Further Notice*, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.[651] In addition, the *Further Notice* and IRFA (or summaries thereof) will be published in the Federal Register.

2. *Need for and Objectives of the Proposed Rules.* The Commission is issuing this *Further Notice* to seek public comment on (a) what specific utilization threshold carriers not participating in thousands-block number pooling should meet in order to request growth numbering resources; (b) whether state commissions should be allowed to set rate-center based utilization thresholds based on criteria that we establish; (c) whether covered CMRS carriers should be required to participate in thousands-block number pooling immediately upon expiration of the LNP forbearance period on November 24, 2002, or whether a transition period should be allowed; and (d) how a market-based allocation system for numbering resources could be implemented. We also seek to obtain the following: (a) cost studies that quantify the incremental costs of thousands-block number pooling; (b) cost studies that quantify shared industry and direct carrier-specific costs of thousands-block number pooling; and (c) cost studies that take into account the cost savings associated with thousands-block number pooling in comparison to the current numbering practices that result in more frequent area code changes.

3. In doing so, we seek to (1) ensure that the limited numbering resources of the NANP are used efficiently; (2) protect customers from the expense and inconvenience that result from the implementation of new area codes; (3) forestall the enormous expense that will be incurred in expanding the NANP, and (4) ensure that all carriers have the numbering resources they need to compete in the rapidly growing telecommunications marketplace.

4. *Legal Basis.* The proposed action is authorized under sections 1, 4(i) and (j), 201, 208, and 251 of the Communications Act of 1934, as amended.[652]

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650 *See* 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. § 601 *et seq.*, has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

651 *See* 5 U.S.C. § 603(a).

652 47 U.S.C. §§ 151, 154(i), 154(j), 201 and 251(e).

5. *Description and Estimate of the Number of Small Entities That May Be Affected by this Report and Order.* The RFA requires that an initial regulatory flexibility analysis be prepared for notice-and-comment rulemaking proceedings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."[653] The RFA generally defines "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction."[654] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[655] A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).[656]

6. In this IRFA, we have considered the potential impact of this *Further Notice* on all users of telephone numbering resources. The small entities possibly affected by these rules include wireline, wireless, and other entities, as described in Appendix B. The SBA has defined a small business for Standard Industrial Classification (SIC) categories 4,812 (Radiotelephone Communications) and 4,813 (Telephone Communications, Except Radiotelephone) to be small entities having no more than 1,500 employees.[657] In the FRFA to the *Universal Service Order*, we described and estimated in detail the number of small entities that would be affected by the new universal service rules.[658] Although some affected incumbent local exchange carriers (ILECs) may have 1,500 or fewer employees, we do not believe that such entities should be considered small entities within the meaning of the RFA because they are either dominant in their field of operations or are not independently owned and operated, and therefore by definition are not "small entities" or "small business concerns" under the RFA. Accordingly, our use of the terms "small entities" and "small businesses" does not encompass small ILECs. Out of an abundance of caution, however, for regulatory flexibility analysis purposes, we will separately consider small ILECs within this analysis and use the term "small ILECs" to refer to any ILECs that arguably might be defined by the SBA as "small business concerns."[659]

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653 5 U.S.C. § 605(b).

654 *Id.* § 601(6).

655 *Id.* § 601(3) (incorporating by reference the definition of "small business concern" in Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies "unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register."

656 Small Business Act, 15 U.S.C. § 632.

657 13 C.F.R. § 121.201.

658 Federal-State Joint Board on Universal Service, *Report and Order*, CC Docket No. 96-45, 12 FCC Rcd 8776, 9227-9243 (1997) (*Universal Service Order*), as corrected by Federal-State Joint Board on Universal Service, *Erratum*, CC Docket No. 96-45, FCC 97-157 (rel. June 4, 1997), *appeal pending sub nom. Texas Office of Public Utility Counsel v. FCC and USA*, No. 97-60421 (5th Cir. 1997).

659 *See* 13 C.F.R. § 121.201, SIC code 4813. Since the time of the *Local Competition* decision, 11 FCC Rcd (continued….)

7. The most reliable source of information regarding the total numbers of certain common carrier and related providers nationwide, as well as the numbers of commercial wireless entities, appears to be data the Commission publishes annually in its *Carrier Locator: Interstate Service Providers Report (Locator)*.[660] These carriers include, *inter alia*, local exchange carriers, competitive local exchange carriers, interexchange carriers, competitive access providers, satellite service providers, wireless telephony providers, operator service providers, pay telephone operators, providers of telephone toll service, providers of telephone exchange service, and resellers.

8. *Total Number of Companies Affected*. The U.S. Bureau of the Census (Census Bureau) reports that, at the end of 1992, there were 3,497 firms engaged in providing telephone services, as defined therein, for at least one year.[661] This number contains a variety of different categories of carriers, including local exchange carriers, interexchange carriers, competitive access providers, cellular carriers, mobile service carriers, operator service providers, pay telephone operators, personal communications services providers, covered specialized mobile radio providers, and resellers.[662] It seems certain that some of those 3,497 telephone service firms may not qualify as small entities or small ILECs because they are not "independently owned and operated."[663] For example, a PCS provider that is affiliated with an interexchange carrier having more than 1,500 employees would not meet the definition of a small business. It is reasonable to conclude that fewer than 3,497 telephone service firms are small entity telephone service firms or small ILECs that may be affected by the proposed rules, if adopted.

9. *Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements*.[664] This *Further Notice* requests comment and cost studies (1) that quantify the incremental costs of thousands-block number pooling;[665] (2) that quantify shared industry and direct carrier-specific costs of thousands-block number pooling; and (3) that take into account the costs savings associated with thousands-block number pooling in comparison to the current

(Continued from previous page)
15499, 16144-45 (1996), 61 FR 45476 (Aug. 29, 1996), the Commission has consistently addressed in its regulatory flexibility analyses the impact of its rules on such ILECs.

660 FCC, Carrier Locator: Interstate Service Providers at 1-2. This report lists 3,604 companies that provided interstate telecommunications service as of December 31, 1997 and was compiled using information from Telecommunications Relay Service (TRS) Fund Worksheets filed by carriers (Jan. 1999).

661 U.S. Department of Commerce, Bureau of the Census, *1992 Census of Transportation, Communications, and Utilities: Establishment and Firm Size*, at Firm Size 1-123 (1995) (*1992 Census*).

662 A description of the effected entities are list in the Final Regulatory Flexibility Act Analysis, Appendix B.

663 *See generally* 15 U.S.C. § 632(a)(1).

664 *See Notice*, 14 FCC Rcd at 10433, for an Initial Paperwork Reduction Act analysis.

665 *See supra* ¶ 193.

number practices that result in more frequent area code changes.[666]

11. *Recordkeeping.* None.

12. *Other Compliance Requirements.* None.

13. *Steps taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered.* We have stated that section 251(e) does not exclude any class of carriers and that all telecommunications carriers must bear numbering administration costs on a competitively neutral basis.[667] Therefore, we find that section 251(e)(2) requires us to ensure that the costs of numbering administration, including thousands-block number pooling, do not affect the ability of carriers to compete. As such, the costs of thousands-block number pooling should not give one provider an appreciable, incremental cost advantage over another when competing for a specific subscriber; and should not have a disparate effect on competing providers' abilities to earn a normal return.[668]

14. *Federal Rules That May Duplicate, Overlap, or Conflict With the Proposed Rules*. None.

666 *See supra* ¶ 213.

667 *Telephone Number Portability Third Report and Order*, 13 FCC Rcd at 11731.

668 *See supra* ¶ 194.

Appendix D

List of the Parties

Comments - In addition to the parties listed below, the Commission also considered the comments, including e-mails, postcards and other correspondence, from over 3,000 citizens in this matter.

1. Adamson, Grier
2. Ad Hoc Telecommunications Users Committee (Ad Hoc)
3. AirTouch Communications, Inc. (AirTouch)
4. Ameritech
5. Arsinow, Richard A.
6. Arvanitas, Ms. Peggy
7. Association for Local Telecommunications Services (ALTS)
8. AT&T Corporation (AT&T)
9. Bartel, Richard C., and Communications Venture Services, Inc. (Venture Services)
10. Bell Atlantic
11. BellSouth Corporation (BellSouth)
12. Burrows Resource Group Inc. (BRG)
13. Cablevision Lightpath, Inc. (Cablevision)
14. California Public Utilities Commission (California Commission)
15. Campbell, Bill - California Assemblyman 71st District, letter to Congressman James E. Rogan
16. Carlson, Douglas F.
17. Cellular Telecommunications Industry Association (CTIA)
18. Chambers, Rose A.
19. Cincinnati Bell Telephone Company (CinBell)
20. Citizens Utility Board, People of the State of Illinois, Cook County State's Attorney's Office, and the City of Chicago (Citizens Util. Bd., et al.)
21. Cohen, Marsha N.
22. Colpitts, Robert M., Jr.
23. Colorado Public Utilities Commission (Colorado Commission)
24. Connect Communications Corporation (Connect)
25. Connecticut Department of Public Utility Control (Connecticut Commission)
26. Cox Communications, Inc. (Cox)
27. Eyre, Richard
28. Florida Public Service Commission (Florida Commission)
29. Gethard, Elaine Meitus
30. GTE Service Corporation (GTE)
31. Illinois Chapter of National Emergency Number Association (INENA)
32. Joint Comments of Choice One Communications, Inc., and GST Telecommunications, Inc. (Choice One and GST)
33. Joint Comments of Centennial Cellular Corporation; Centurytel Wireless, Inc.; Thumb Cellular, Limited Partnership; and Trillium Cellular Corp. (Centennial, et al.)
34. Joint Comments of Texas Office of Public Utility Counsel and National Association

of State Utility Consumer Advocates (Texas Public Util. Counsel and NASUCA)
35. Level 3 Communications, Inc. (Level3)
36. Liberty Telecom LLC (Liberty)
37. Maine Public Utilities Commission (Maine Commission)
38. Maydak, Keith
39. Massachusetts Department of Telecommunications and Energy (Massachusetts Commission)
40. MCI WorldCom, Inc.
41. MediaOne Group, Inc.
42. Minnesota Department of Public Service (Minnesota Commission)
43. Missouri Public Service Commission (Missouri Commission)
44. Mitretek Systems, Inc.
45. Mobility Canada
46. Mohlenbrok, Gerald
47. National Association of Regulatory Utility Commissioners (NARUC)
48. National Emergency Number Association (NENA)
49. National Exchange Carriers Association (NECA)
50. National Telephone Cooperative Association (NTCA)
51. Neill, Professor Bill
52. New Hampshire Public Utilities Commission (New Hampshire Commission)
53. New Jersey Board of Public Utilities (New Jersey Commission)
54. Newman, Vicky
55. New York State Department of Public Service (New York Commission)
56. Nextel Communications, Inc. (Nextel)
57. Nextlink Communications, Inc. (Nextlink)
58. Nilsen, Beate
59. North American Numbering Plan Administrator (NANPA)
60. North American Numbering Council (NANC)
61. North Carolina Utilities Commission (North Carolina Commission)
62. Omnipoint Communications, Inc. (Omnipoint)
63. Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO)
64. Paging Network, Inc.
65. Pennsylvania Office of Consumer Advocate and NASUCA (Pennsylvania Consumer Advocate and NASUCA)
66. Pennsylvania Public Utility Commission (Pennsylvania Commission)
67. Personal Communications Industry Association (PCIA)
68. Prichard, Douglas R. City of Rolling Hills Estates City Manager
69. PrimeCo Personal Communications, L.P. (PrimeCo)
70. Public Service Commission of Wisconsin (Wisconsin Commission)
71. Public Utilities Commission of Ohio (Ohio Commission)
72. Public Utility Commission of Texas
73. Qwest Communications Corporation (Qwest)
74. Ravizza, Norman
75. RCN Telecom Services, Inc.
76. REC Networks

77. Rogers Cantel, Inc.
78. Saco River Telegraph & Telephone Co.
79. Salva, Carol
80. SBC Communications, Inc. (SBC)
81. Small Business Alliance for Fair Utility Regulation (Small Business Alliance)
82. Solnit, Kenneth T.
83. Sprint Corporation (Sprint)
84. Sullivan, Mr. Michael A.
85. Texas Advisory Commission State Emergency Communications
86. Texas Office of Public Utility Counsel
87. Time Warner
88. Thro, Dennis
89. United States Telephone Association (USTA)
90. U S West Communications, Inc. (U S West)
91. Virginia State Corporation Commission, Division of Communications
92. VoiceStream Wireless Corp. (VoiceStream)
93. WinStar Communications, Inc. (WinStar)
94. Yablon, Gilbert (Smart Dialing Systems)
95. Zamzow, Norma

Reply Comments

96. Ad Hoc Telecommunications Users Committee (Ad Hoc)
97. AirTouch Communications, Inc.
98. Allegiance Telecom, Inc.
99. Ameritech
100. Association for Local Telecommunications Services (ALTS)
101. Association of Public-Safety Communications Officials-International, Inc. and the National Emergency Number Association (NENA)
102. AT&T Corporation
103. Bell Atlantic
104. BellSouth Corporation
105. California Public Utilities Commission and the People of the State of California
106. Cellular Telecommunications Industry Association (CTIA)
107. CenturyTel, Inc.
108. Cincinnati Bell Telephone Company
109. Colorado Numbering Task Force
110. Competitive Telecommunications Association (CompTel)
111. Connect Communications Corporation (Connect)
112. Cook County State's Attorney's Office
113. Cox Communications, Inc.
114. Florida Public Service Commission
115. GTE Service Corporation
116. INENA (Illinois chapter of National Emergency Number Association)
117. Joint Reply Comments of Choice One Communications, Inc., and GST Telecommunications, Inc.

118. Level 3 Communications, Inc.
119. Levine, Richard
120. Maine Public Utilities Commission
121. MCI WorldCom, Inc.
122. MediaOne Group, Inc.
123. National Emergency Number Association (NENA)
124. National Exchange Carriers Association, Inc. (NECA)
125. National Telephone Cooperative Association (NTCA)
126. Neill, Professor Bill
127. New York State Department of Public Service
128. Nextel Communications, Inc.
129. Nextlink Communications, Inc.
130. Omnipoint Communications, Inc.
131. Pennsylvania Office of Consumer Advocate and National Association of State Utility Consumer Advocates (NASUCA)
132. Pennsylvania Public Utility Commission
133. Personal Communications Industry Association (PCIA)
134. Public Service Commission of Wisconsin
135. RCN Telecom Services, Inc.
136. SBC Communications, Inc.
137. Small Business Alliance for Fair Utility Regulation
138. Sprint Corporation
139. Telcordia Technologies, Inc.
140. Teligent, Inc.
141. United States Telephone Association (USTA)
142. WinStar Communications, Inc.

SEPARATE STATEMENT OF COMMISSIONER SUSAN NESS

Re: Numbering Resource Optimization (CC Docket No. 99-200)

I support the steps we take in this order to implement strategies to conserve telephone numbers. I share the frustration the public is experiencing with the proliferation of new area codes. Each area code change imposes substantial costs and burdens on consumers. This order is only one step in our efforts to ensure that numbers are used efficiently. We must continue to work together with state public utility commissions, industry and consumer groups, and other interested parties to develop additional strategies to slow the rate at which new area codes are required.

I also support collecting information on number utilization from carriers so that we can ensure that numbers are being used efficiently. Nevertheless, we must recognize that reporting requirements impose a burden, especially on small, rural carriers. These carriers generally use few numbering resources, rarely seek additional numbering resources, and therefore, are not a significant cause of number exhaust problems. I am pleased that today's order recognizes the disproportionate burden of reporting requirements on small carriers by imposing fewer requirements on them. I would have preferred to exempt, from more detailed reporting, rural carriers that generally operate in areas where demand for numbers is not as great. As just one example, I would not have required rural carriers to maintain internal records of numerous subcategories of number usage. To the extent carriers consider that any of the requirements in this order impose an undue burden, I would encourage these carriers, or associations of these carriers, to seek a joint waiver.

SEPARATE STATEMENT OF COMMISSIONER HAROLD FURCHTGOTT-ROTH

Re: Numbering Resource Optimization, CC Docket No. 99-200.

I share Commissioner Ness's concern that this order's requirements may unduly and unnecessarily burden rural carriers. I therefore support Commissioner Ness's recommendation that these carriers, should they find any of these requirements too onerous, seek a waiver.